

Ol. Amygd. Ang.
S.A.P.

Ol. Anisi Ang.

Ol. Anisi, China
Star

Ol. Anethi Ang.

Ol. Anthemidi
Ang.

Ol. Aurantii Dulc.

Ol. Aurantii
Amara

Ol. Bergamot. Se-
lecta

Ol. Cajuputi

Ol. Carui Ang.

Ol. Carui Exot.

Ol. Caryophylli

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Ol. Menth. Pip.
Ang.

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Exot.

Ol. Menth. Viridis

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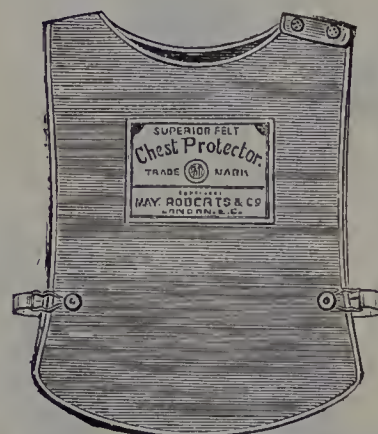
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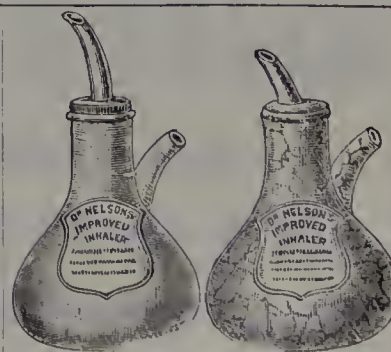
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FIG. 8.

MAW'S IMPROVED.



FIG. 6.

MAW'S DOUBLE-VALVED.

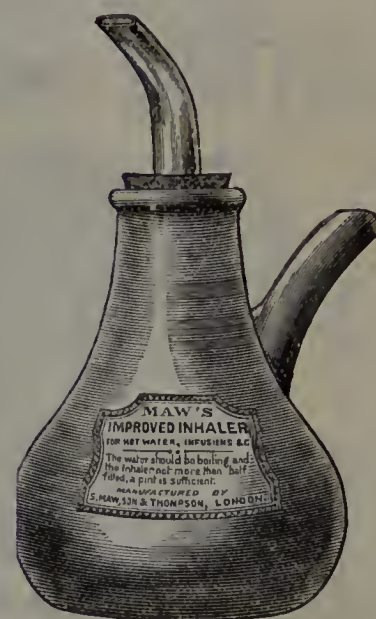


FIG. 8a.

MAW'S IMPROVED.

Fig. 6.—Double-Valved, 60/- per dozen; with Elastic Tubes, 78/-

Fig. 8.—Marbled, 32/ per dozen.

Fig. 8a.—White, 21/- per dozen.

Fig. 8a.—White, half size, 13/- per dozen.

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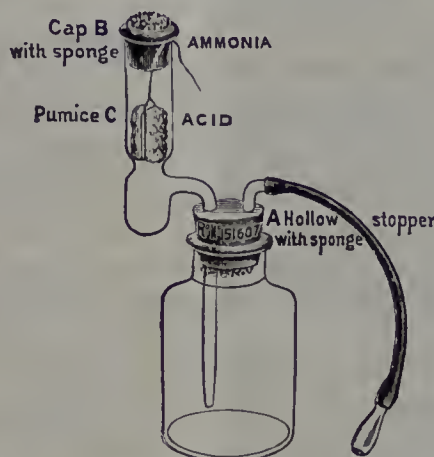
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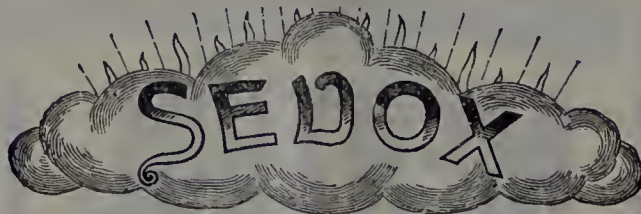
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Fig. 1.

Fig. 2.

Fig. 3.

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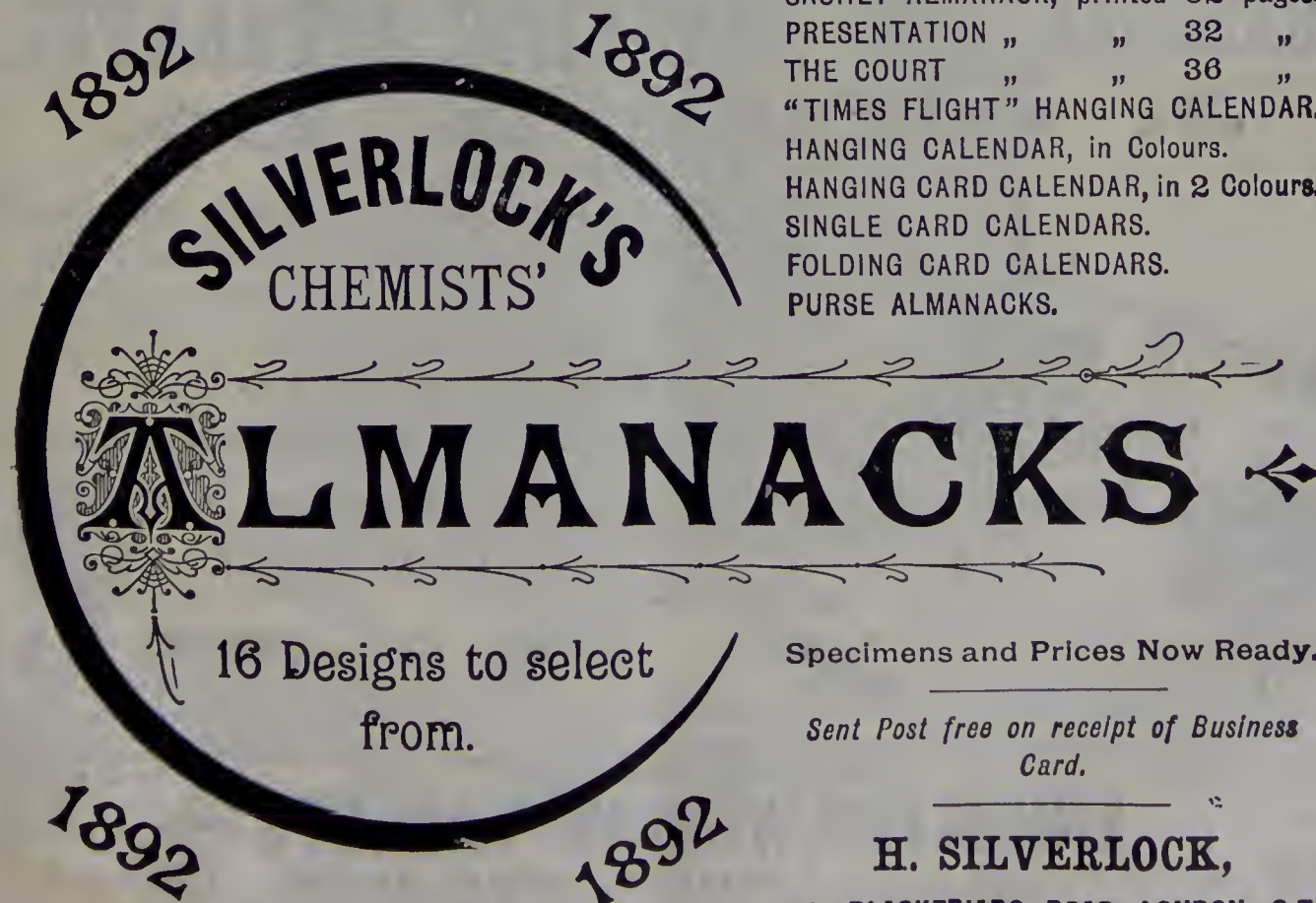
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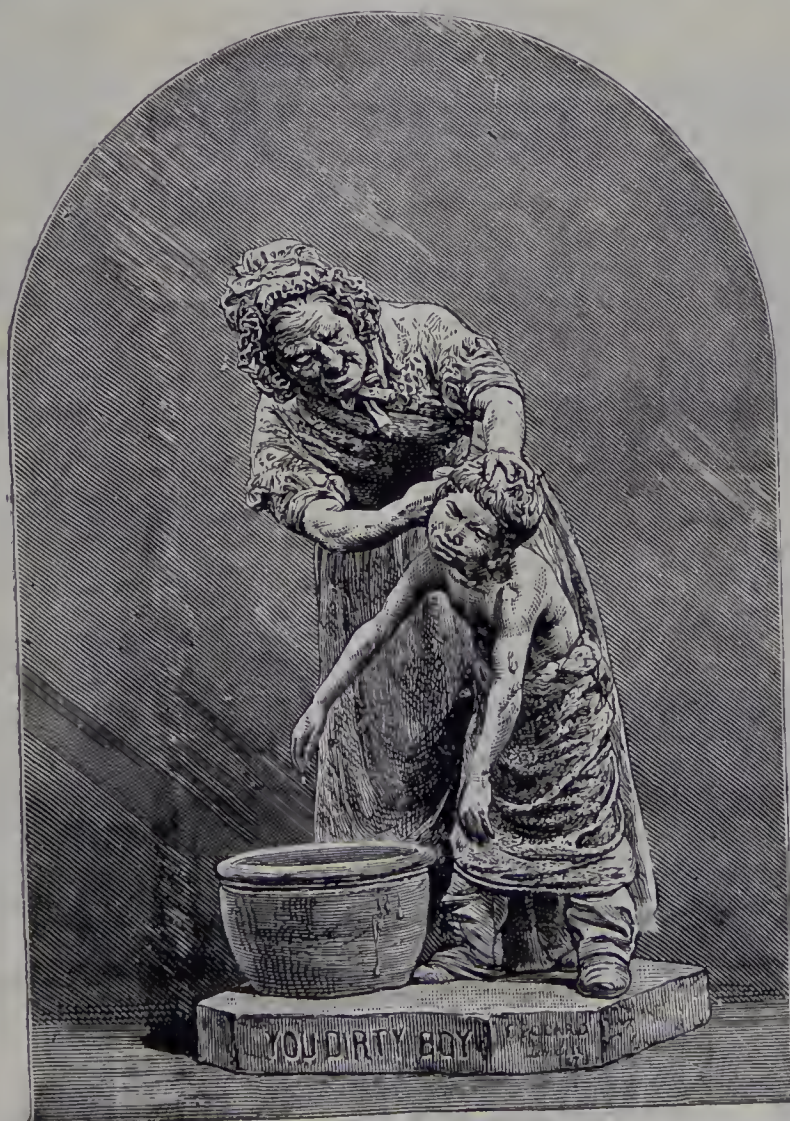
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Cheap, a few small patent tincture or filtering presses, 2 quarts capacity, for chemists' use and others; inside of cylinder being enamelled, it will not be affected by acids. Address, "Tincture," 42 Cannon Street, E.C.

WANTED.

Vaseline, Beecham's, Eno's, Siegel's, Scott's, 89/26.

Second-hand chemist's fittings, complete or parts. K., 5, Junction Road, N.

Empty 1, 2, 3, and 4 gallon tins. Nicholson, Obemist, Darlington.

A copy of the *Register of Chemists and Druggists* for 1891. State price to Hill House, Alnwick. Ganot's "Physics," last edition, in good condition, lowest price. Pilkington, Chemist, Buxton.

Stoke's patent check-till, in good order; also sheep-dipping tub, good condition. Boyden, Chemist, Pocklington.

Quantity of Tonquin beans, large; state lowest price. White, Chemist, 157 Commercial Road, E.

Good second-hand set counter-drawers, with label, till preferred; length not more than 3 $\frac{1}{2}$ ft., height 33 in.; cheap. Marshall, Chemist, Long Eaton.

Hanbury and Fluckiger's "Pharmacographia," also Greenish's "Plant Analysis," second-hand, latest editions. Thomas Mackenzie, 4 Church Street, Inverness.

LINT.

GAMGEE TISSUE
(PATENT ABSORBENT GAUZE AND COTTON WOOL.)

ABSORBENT COTTON WOOL.

ROLL BANDAGES.

ANTISEPTIC DRESSINGS.

14

ROBINSON & SONS,

COTTON SPINNERS AND MANUFACTURERS OF
SURGEONS' LINTS, COTTON WOOLS,
BANDAGES, & ANTISEPTIC DRESSINGS,
WHEAT BRIDGE MILLS,
NEAR CHESTERFIELD.

Depot—55 Fann Street, Aldersgate Street, London.



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100 leaves in tin box, price 5s.

**IF YOU TRY THEM
YOU WILL BUY THEM!**

A Test and Comparison will show that the Mustard Plasters prepared by **JOHNSON & JOHNSON** are of greater strength and generally superior to others. They do not decompose nor change with age. They are packed in very handsome containers, in packages, to retail at from 1d. to 1/6 each.

THEY ARE THE MOST PROFITABLE

To all concerned in Mustard Plasters because they are the best made.

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| | | On Paper | On Cloth | Retail price '6 each |
|--|--|----------|----------|-------------------------|
| 3 leaves in round tin box, per dozen | | 2/9 | 3/- | |
| 6 " " " " " " " " " " " " " " | | 5/- | 5/6 | 1/" |
| 10 " flat " " " " " " " " " " | | 7/- | 8/6 | 1/6 " |
| 100 " one in envelope, in tin box, per box .. | | 5/- | 6/- | 1½ " |
| Yard rolls, 6 in. wide, per dozen | | 7/- | 8/6 | 1/6 " |
| Half-yard rolls, 6 in. wide, per dozen | | 5/6 | 6/- | 1/" |

Sample Mustard Leaf mailed to any chemist's address, without charge, on application; or on receipt of 8d. in stamps, 1 box 10 leaves paper (see cnt), and 1 box 3 leaves cloth, retail for 2/.



10 leaves in flat tin box, at 7s. per doz. boxes.

LONDON CORN PLASTERS.



JOHNSON & JOHNSON

Briefly described as follows :—The centre is a piece of Salicylic Plaster Mass (40 per cent.) which is placed over the corn.

Around this is a corn shield which prevents pressure from the boot, and the Salicylic from going beyond and injuring the flesh.

The whole is kept in position by means of a strip of adhesive plaster on the back.

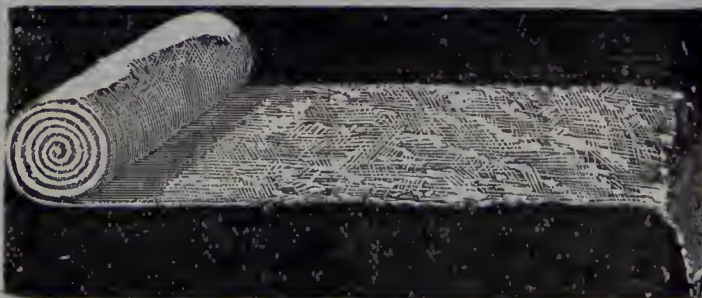
SALEABLE

BECAUSE

SENSIBLE

Packed in 6d. and 1/ boxes. Sample dozen mailed to any chemist's address, on receipt of 3/6 for the 6d. size, or 6/6 for the 1/ size.

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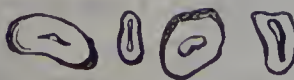


Rolled with Tissue Paper between to prevent felting,

The Invention of JOHNSON & JOHNSON.

AS EASY TO APPLY AS A CLOTH BANDAGE.

Every raw cotton fibre is a flat twisted tube filled with oil, wax, resin, and covered with pectose and other matter.



Section of Cotton Fibre enlarged.

The product is strong, elastic, and perfect Absorbent Wool. Our present output is two tons per day.

To make Absorbent Wool, we extract these foreign substances by repeated boiling, rinsing, and bleaching, until the true fibre (cellulose)—nothing else—remains.

We then card and sterilise.

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NATURAL MINERAL WATERS

NET
CARRIAGE
PAID.

INGRAM & ROYLE,

Packing
Free.

SOLE IMPORTERS OF

ÆSCULAP, CARLSBAD, LA-BOURBOULE, VICHY (STATE SPRINGS), &c., &c.

52 Farringdon Street, LONDON, E.C.

19 South John Street, LIVERPOOL.

| NAME. | Per Dozen. | | Original Packages. | | | | NAME. | Per Dozen. | | Original Packages. | | | |
|------------------------------|------------|---------------------|--------------------|-----|------------------------|-----|-------------------------------|------------|---------------------|--------------------|-----|------------------------|-----|
| | Bots. | $\frac{1}{2}$ Bots. | Bottles. | | $\frac{1}{2}$ Bottles. | | | Bots. | $\frac{1}{2}$ Bots. | Bottles. | | $\frac{1}{2}$ Bottles. | |
| Æsculap | 15/ | 12/ | 25 | 30/ | 50 | 50/ | Missisquoi | 25/ | .. | 24 | 48/ | .. | .. |
| Apollinaris | 6/3 | 5/ | 50 | 25/ | 100 | 39/ | Orezza | 12/ | .. | 30 | 30/ | .. | .. |
| Bourboule (La) | 11/ | .. | 50 | 42/ | .. | .. | Pullna | 12/ | 8/ | 40 | 36/ | 40 | 25/ |
| Carlsbad | 12/ | .. | 50 | 46/ | .. | .. | Rosdorf | 6/ | .. | 50 | 25/ | .. | .. |
| Condal | .. | 14/ | .. | .. | 50 | 56/ | Rosbach | 6/ | 5/ | 50 | 24/ | 100 | 36/ |
| Contrexeville "Le Cler" .. | 8/ | .. | 50 | 32/ | .. | .. | Royat | 9/ | .. | 50 | 34/ | .. | .. |
| Do. "Pavilion" .. | 9/ | .. | 50 | 35/ | .. | .. | Rubinat | 15/ | .. | 25 | 30/ | .. | .. |
| Ems | 7/ | .. | 50 | 28/ | .. | .. | St. Galmier Badolt (Still) .. | 6/ | .. | 50 | 22/ | .. | .. |
| Flitwick | 12/ | .. | .. | .. | .. | .. | Do. Noël (Sparkling) .. | 6/ | 4/ | 60 | 26/ | 100 | 34/ |
| Franz-Josef | .. | 11/ | .. | .. | 50 | 42/ | Selters | 6/ | 4/6 | 50 | 24/ | 50 | 17/ |
| Friedrichshall | 13/ | 10/ | 25 | 25/ | 50 | 40/ | Sulis | 6/ | 5/ | 50 | 23/ | 100 | 36/ |
| Giesshubler, claret shape .. | 8/ | 5/ | 50 | 30/ | 100 | 38/ | Tarasp | 12/ | .. | 30 | 28/ | .. | .. |
| Homburg | 12/ | .. | 50 | 48/ | .. | .. | Taunus | 5/6 | 4/6 | 50 | 22/ | 100 | 32/ |
| Hunyadi-Janos | 16/ | 13/ | 25 | 30/ | 50 | 50/ | Vals | 8/6 | .. | 50 | 33/ | .. | .. |
| Johannis-Brunnen | 6/ | 5/ | 50 | 23/ | 100 | 36/ | Vichy (State Springs) .. | 8/6 | 7/6 | 50 | 33/ | 50 | 29/ |
| Kronenquelle | 10/ | .. | 50 | 40/ | .. | .. | Victoria Ofner | 14/ | 10/ | 25 | 27/ | 50 | 38/ |
| Marienbad | 10/ | .. | 50 | 38/ | .. | .. | Wildungen | 10/ | .. | 50 | 40/ | .. | .. |

DETAILED PRICE LIST AND PAMPHLET ON APPLICATION.

12

"PREMIER BRAND" ESSENTIAL OILS.

Concentrated Fruit Essences—Soluble

MANUFACTURED BY

JOHN CUMMOCK

Who has received Hundreds of Unsolicited Testimonials, also THREE GOLD MEDALS, besides other Honours.

Chemists manufacturing their own Aërated Drinks should write for Prices and Samples of the following:—

ESSENCE "SPARKLING LIMETTA"—Soluble "Essence of Lemon"

ESSENCE "LEMON SQUASH"—Essence for Sherbet

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AND COMPARE WITH OTHER MAKERS.

Manufactory & Offices: **45 ROPE WORK LANE, GLASGOW.**
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SODAWATER MACHINERY

AND APPLIANCES
BRATBY & HINCHLIFFE LTD
ANCOATS 146 MINORIES
MANCHESTER LONDON EC

81 ROBERTSON STREET, GLASGOW.

PRICES.

SYPHONS ... 1/6 1/8 and 1/10 each.

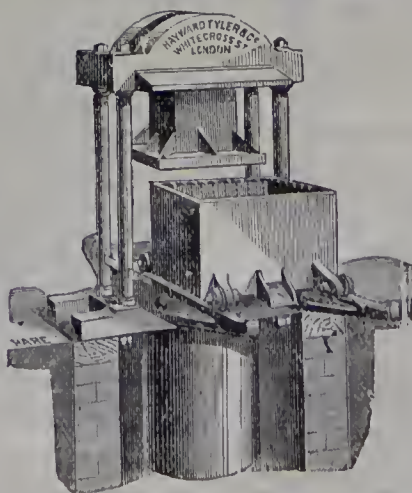
SELTZOGENES.

| | | | | | |
|-----|-----|----|----|------|------------|
| 1 | 2 | 3 | 4 | 5 | 8 pint. |
| 5/6 | 6/2 | 7/ | 8/ | 9/11 | 15/6 each. |

All our Seltzogenes are manufactured on the well-known "Fevre" System, and each one is thoroughly tested before leaving the works.



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HAY'S

SOLUBLE ESSENCES

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

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W. HAY, MANUFACTURING CHEMIST

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IN ORDERING SPECIFY HAY'S MANUFACTURE



ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt, and sound Port Wine.

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From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. Robinson, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.,

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).

December 15, 1888.

ROBINSON'S ORANGE WINE.

Especially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application. [2]

PHARMACEUTICAL SHERRY WINE.

This Wine is well adapted for Pharmaceutical Preparations, and is the strength ordered by the B.P. Price, in 6-Gallon Casks, 5/6 per gallon: 2-Gallon Jars, 6/- per gallon, carriage paid. Casks charged 7/6, Jars 2/8, and allowed if returned. Cash or satisfactory reference to accompany order.

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The "MEDICAL PRESS AND CIRCULAR":—

"Certainly this preparation is of delicate flavour . . . It is perfectly soluble . . . the small quantity required for the immediate production of a cup of excellent cocoa will ensure for this 'Elect Extract' a favourable reception at the hands of persons of weak digestion, and all who prefer this wholesome beverage to tea and coffee."

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RED AND WHITE ROSES, THE MOST POPULAR CACHOU IN THE TRADE. Size and Shape. FRAGRANT "BOUQUET" CACHOUS. HELIOTROPE. VIOLET. ORANGE BLOSSOM. PRIMROSE.

The excellence of the perfume and the superior make of these Cachous create a great demand wherever they are introduced.

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Parcels of 14 lbs. forwarded carriage paid, with a handsome Glass Show Jar gratis (fig. A, No. 5, Maw's list), on receipt of P.O.O. for 33s.

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18

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The small leaf from some of the finest India and China Teas. Prednoes Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

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"The Lancet," Oct. 3rd, 1891, p. 771, says:—
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List on application.



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Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each.

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Made from MASON'S Original

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Composed of Yarrow, Dandelion, Comfrey, & Horehound,
ENLARGEMENT OF SIZE.

A Sixpenny Bottle makes EIGHT GALLONS of

HERB OR BOTANIC BEER

A NON-INTOXICATING BEVERAGE

Full of Body and Flavour, with a Creamy Head like Bottled Ale, the most perfect substitute for Alcoholic Drinks ever discovered, for either Summer or Winter.

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NO OTHER EXTRACT MAKES BEER LIKE IT.

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THE LATEST SPECIALITY—the Celebrated Artesian Bourne Water in Pints and Quarts for Table Use.

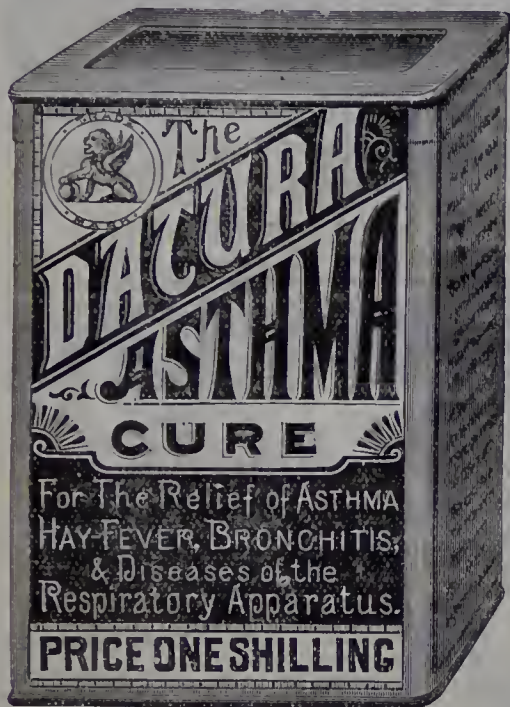
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Handsomely Packed in Tins to Retail at 1/. Price 8/ per doz.

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OF FULL STRENGTH,

SUPERIOR FLAVOUR,

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PRICE 1s. per lb.; W. QUARTS, 11d. per lb.

Special Prices for Large Quantities.



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Also in 6d. and 1/- Bottles, well Labelled, at 3/6 and 6/- per Dozen.

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In Packets of
half-pint, pint, and
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less than one-third
of the ordinary
Bottled Jellies.



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*Where all orders and communications should
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Their New Factory at Camden
Town is nearly complete, and
is being fitted with new and
improved appliances for turn-
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PERFECT MEAT PREPARATIONS FOR INVALIDS.

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Purveyors
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Table
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By Royal
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IDRIS & CO. now supply a larger number of the London Hospitals, Public Institutions, and Chemists than any other Manufacturers, which is in itself a sufficient guarantee of the excellence and purity of the Waters supplied by them.

"I have examined the Mineral Waters prepared by **IDRIS & CO.**, and find that in regard to Chemical Purity and Brilliancy they are unsurpassable."

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ELEGANT SYPHONS. BEST PRICES. PROMPT DELIVERY. WRITE FOR PRICE LIST.

IDRIS & CO., KENTISH TOWN, LONDON, N.W.

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PRICE OF FEEDING BOTTLES

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MATHER'S WHITE GLASS STRAIGHT OR PRINCESS SHAPE BOTTLES, Boxwood Top Corks, *Mounted with Best White, Black, or Brown Fittings*, per gross **26/-** nett.

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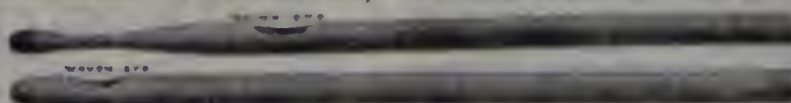
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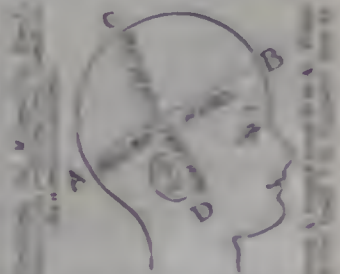
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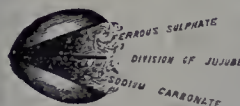
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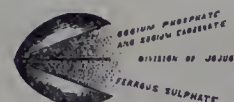
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LISTERINE is a well-proven antiseptic agent—an antizymotic—especially useful in the management of catarrhal conditions of the mucous membrane, adapted to internal use, and to make and maintain surgical cleanliness—asepsis—in the treatment of all parts of the human body, whether by spray, irrigation, atomization, or simple local application, and therefore characterised by its particular adaptability to the field of

PREVENTIVE MEDICINE—INDIVIDUAL PROPHYLAXIS.

LISTERINE destroys promptly all odours emanating from diseased gums and teeth, and will be found of great value when taken internally in teaspoonful doses, to control the fermentative eruptions of dyspepsia, and to disinfect the Mouth, Throat, and Stomach. It is a

PERFECT TOOTH AND MOUTH WASH,

Its value in this direction having been fully determined by the most conservative element of the Dental Profession.

14-OZ. SIZE, UNSTAMPED, FOR DISPENSING ONLY, PER DOZ. 38 -

Samples and further information regarding the products of the LAMBERT PHARMACAL CO. may be had by application to the Company at St. Louis, U.S., or to our

Wholesale Agents for Great Britain and the Colonies, excepting Canada,

S. MAW, SON & THOMPSON, 7 TO 12 ALDERSGATE STREET, LONDON, E.C.

EVERY

THE enormous demand which we have had and are still having for the 1/1½ size of ST. JACOBS OIL would naturally lead one to believe that we had already supplied the trade with a sufficient quantity to completely fill all the shelves of every Chemist's shop in the United Kingdom. It would appear, however, that there still remain a considerable number of dealers, who for reasons best known to them-



It rules the world.

retailers which enables them to hold the goods as low as their natural and ever-present enemy, the cutter. We strongly advise, therefore, every Chemist to stock the 1/1½ size of ST. JACOBS OIL either through the wholesale houses or from us direct (the goods are now in the hands of every wholesale Drug and Medicine house in Great Britain and Ireland). There is nothing lost by being up with

SHOULD

selves, have not, as yet, placed this popular size of the most popular of all remedies for outward use into stock; this is to be regretted, for, in our opinion, a dealer stands in his own light when he is not in position to supply people who come to his shop and ask for a cheap size of one of the most extensively advertised articles in his trade, especially when the manufacturer fixes a price to the



Our Traveller "catches on" in Liverpool.

the times in these days. ST. JACOBS OIL in the 1/1½ and 2/6 size is now at the front; its great supremacy over any other outward application is an acknowledged fact. It is admitted by every thorough Chemist that ST. JACOBS OIL is a scientifically prepared pharmaceutical preparation of great merit, which, combined with extensive, persistent, and original advertising, makes it

ST. JACOBS OIL

CHEMIST

the leading remedy in its class in the world. To facilitate dealers in furthering the sale of the small size ST. JACOBS OIL we have caused our advertising supplies, which we furnish to dealers free of charge and carriage paid, to be rearranged, so as to make special and prominent mention of this size.



And is a great success in Wales.

proud of and will use. For exceptional terms and price-list of ST. JACOBS OIL, 1/1½ and 2/6 sizes, see our announcement in this paper in the October 31st, 1891, issue, page 32 (bottom folio).

Send in your orders, which will be shipped, carriage paid, together with advertising supplies, if desired, on same day they are received. Our

STOCK

Our 48-page book, entitled "A Souvenir," is still supplied with dealer's name and address printed thereon, which, with our 72 different designs in 4-oz., 6-oz., and 8-oz. sizes counter wrappers (printed on one side only), on clear heavy white paper (with wide margins), together with Show Cards, Picture Cards, Panel Transparencies, &c., &c., make up a parcel which every Chemist is



Crosses over to France, where they do things differently.

newspaper advertising is being continually increased, with a corresponding increase in the demand on us for ST. JACOBS OIL.

P.P. The CHARLES A. VOGELER CO.,
WM. E. GEDDES,
General European Manager,
45 Farringdon Road, LONDON.

Telegraphic Address—"Rumatix London."
Telephone No. 6714.

1/1½ SIZE.

A Thorough Tradesman

Is ever on the alert to give his customers the best value for money expended, and we believe there is no class of traders more keenly alive to this fact than the present-day Pharmacist.

On this point Lecky once observed, "When a boy comes to my shop for a pocket-knife I give him the best knife possible in return for his outlay. Why? Because bye-and-bye that boy will want a razor." Although this is looking rather far ahead, still it is the very foundation of successful trading, and acting upon this same principle, we offer you
our

Glycerine and Paregoric Pastilles

(Patent No. 17,213.)

CHEMISTS may stock and push these with confidence, and without fear that the goods will be placed in the hands of any but those who are legitimately qualified to sell the same.

No outlay is required to bring them prominently before the public, as with each package we send bold window tickets, handbills, and neat box labels.

Any Chemist, in whatever part of the United Kingdom, will, upon receipt of thirteen shillings and fourpence, have sent him free a box of these Pastilles, tastefully got up, and suitable for display upon any counter.

BLYTON, ASTLEY & CO.

MANUFACTURING PHARMACISTS,

EAGLE LABORATORIES, MANCHESTER.

FRIENDLY TALKS WITH THE TRADE.

CHEMISTS having an eye to their own interests are specially anxious to supply to their customers articles of the very best quality, and it is a fact well borne out by experience that it does pay better to sell a good article at a fair price than it is to supply those products of second-rate quality at inductive rates. It is our intention this week to trace the development of the business in the Improved Pharmaceutical Products as introduced by B. W. & Co.—THE TABLOIDS OF COMPRESSED DRUGS. These, as originally prepared, were intended for the local treatment of throat affections only, and the list of such drugs as were suitable for this treatment was comparatively limited—for instance, chlorate of potash, chlorate of potash and borax, chloride of ammonium, and one or two others. These met with such merited favour from the medical profession that it was decided to make additions of those compressed medicines suitable for general treatment to the list of Tabloids. These, as now supplied, are composed of the purest quality of drugs, compressed in such a manner, where the medicines are intended for general effect, that they will *disintegrate* readily in the stomach and be perfectly absorbed in their progress in the alimentary canal. The value of the Tabloid form of medicine is attested by many of the leading members of the medical profession. Thus, in "Diet in Disease and Health," Dr. Burney Yeo says:—

"An Alkaline Tabloid will correct acidity in the milk and afford to the economy the salts necessary owing to the abstinence from flesh foods."—*Antacid Tabloids. The Treatment of Typhoid Fever.*

Dr. Burnett says:—

"Pepsin may be taken either in powder or tabloids. These are very convenient for the patient."—*Manual of Clinical Dietetics.*

Dr. Douglas Powell, in the *Lancet*, Volume I., 1891, recommends the employment of Trinitrine Tabloids in the treatment of Angina Pectoris. Dr. Murrell, in his handy little work, "Chronic Bronchitis," confirms the already favourably expressed opinions of others of the use of Chloride of Ammonium Tabloids in chronic bronchitis. Dr. Macnaughton Jones, in his work, "Diseases of Women," especially recommends the Cascara, Manganese Dioxide, and Hydrastia Co. Tabloids. These instances afford ample testimony to the immense value of the Tabloid form for administering medicines. The advantages may be enumerated as follows:—

1. The tiny biconvex form of the Tabloid enables the patient to swallow it without any difficulty, round pills, on the contrary, rolling about the mouth in such a manner as to make it impossible for many people to swallow them.
2. The dose of the drug is accurately apportioned, thus enabling the physicians to indicate the exact quantity of the drug ordered to be taken for each dose.
3. The medicines are perfectly preserved from deterioration, for they are not mixed with any substance likely to promote decomposition.

4. The Tabloids maintain their form perfectly in the bottle, and they may be carried about by patients without any danger of premature disintegration; and when these Tabloids are placed on the tongue or are swallowed with a draught of water the Tabloid speedily falls to a fine powder. These are not merely our own statements, but they are facts, as proved by the following report from the *Monthly Therapeutical Review*:—

TABLOIDS OF SULPHONAL, SALOL, &c.—"These are some of the forms of Soluble 'Tabloids' of Compressed Drugs which Messrs. Burroughs, Wellcome & Co. have been instrumental in bringing before the profession. We have carefully tested them, and find that they readily soften, but not too readily break up, when placed in water. They have the advantage, too, of not undergoing premature disintegration in the presence of a moist atmosphere. We have made various experiments for the purpose of testing these, and with the result that the 'Tabloids' have remained perfect and intact in the presence of air extensively charged with aqueous water."

HYPODERMIC TABLOIDS.

These, like all other of our products which have deservedly received the appreciation of the medical profession, have been clumsily imitated. We say, deservedly received, because the only authors of works upon the subject of Hypodermic Medication have written at length upon the advantages of the Hypodermic Tabloids. We will now consider the essential characteristics of the Tabloids. The Tabloid will dissolve readily in a few minims of water, making a perfectly neutral solution. The disintegrator is absolutely devoid of any physiological effect whatever.

1. The active principles, which so rapidly undergo decomposition, or harbour low fungoid growths, when kept in solution, are preserved in perfect condition in these Tabloids.

2. Being *absolutely neutral*, there is no possibility of local irritation at the seat of puncture. We understand that, in the few instances where the imitations of these Tabloids have been used, not only has irritation been caused, but in some instances a suppurating abscess was formed. Thus, Chemists who have brought our products prominently before the notice of eminent Medical Men have found such procedure decidedly to their advantage, many of those medical practitioners who were dispensing their own medicines, under the impression that they thus ensured their patients getting the best-quality drugs, have to a certain extent abandoned this practice, and have sent many prescriptions for their better-class patients to the local Chemist.

PROFITS.—If a Chemist will request his Medical Men to prescribe the Tabloids and other of B. W. & Co.'s products in Latin, and is careful himself to attach a manuscript label bearing the directions according to the prescription, after removing the label, he will be able to obtain the full dispensing price, ensuring a great probability of all repetitions of the medicine.

A WORD ABOUT COD-LIVER OIL.—Many people find it impossible to take the pure Oil, even of the best quality. Others, again, although they can gulp down a dose of Cod-liver Oil, find it excites nausea, creates indigestion, and possibly causes diarrhoea. Now, with a view to avoid these difficulties, the Kepler Solution of Cod-liver Oil was introduced. In this preparation we have combined the essential principles necessary for an ideal food, and "tissue-building" agent in pulmonary affections, rickets, scrofula, and wherever it is found necessary to take Cod-liver Oil. Circular matter relating to these products, bearing the Chemist's own name and address, will be sent to those of our friends, gratis, who will keep a good stock of these products, and notify the fact to the medical profession in their district.

CAUTION.—Do not permit yourselves to be inveigled by the specious arguments of pseudo-enterprising vendors into stocking those inferior imitations of the B. W. & Co.'s well-known Tabloids of Compressed Drugs, and the Kepler Solution of Cod-liver Oil, for such latter-day productions are always inferior in quality, and fluctuate according to the amount of profit desired.

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

"VASELINE"

(REGISTERED TRADE MARK)

NEW STYLE.

Each Tablet in Card Case.

SOAP.

Sample Box
Three Dozen Tablets,
9/- Carriage Paid.

The Best Emollient in the World must be the
Best Basis for Toilet Soap. 33/- PER GROSS TABLETS.

CHESEBROUGH CO., 42 Holborn Viaduct, LONDON, E. C

Proprietors and Sole Makers of the "Vaseline Preparations."

"BLUE SEAL," our regular 6d. size, without Card Case, in Boxes of one gross, 32s. net.

KEPLER SOLUTION OF COD LIVER OIL IN EXTRACT OF MALT.

This preparation is, according to the various reports of the Medical Journals, "the best" of its kind. In it the oil is perfectly dissolved; and its taste is splendidly masked. It is readily and perfectly absorbed from the alimentary canal. The fishy odour of the oil is entirely disguised. Many patients who are unable to take plain Cod Liver Oil can take the Kepler Solution with facility, and with decided advantage in wasting diseases. Physicians are now beginning to recognise that it is not altogether the amount of Cod Liver Oil that can be swallowed or gulped down, but the amount of the oil absorbed which affords the benefit to the patient. This solution is unique for its excellence and purity; it contains no correctives so called, which invariably disgust and nauseate the patient and disorganise the digestive functions. The Kepler Solution of Cod Liver Oil must not be confounded with any similar preparation, for none other in the market contains so large an amount of nutrient material. It yields the Chemist a good margin of profit, and pays him to interest himself in its supply. Circular matter, giving full particulars of the Kepler Malt Extract and the Kepler Solution, will be supplied to Chemists with their own name and address printed on same, free of charge, for distribution amongst their customers.

The Kepler Extract of Malt & The Kepler Solution are supplied in 7-lb. and 1½-lb. bottles at 20/ and 36/ per doz. Prices subject to usual Discount.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

ISO-BUTYL NITRIS.

Also GLASS CAPSULES of ISO-BUTYL NITRITE.

For use in Angina Pectoris, Asthma, and similar complaints, by Inhalation.

Liquor Cascaræ Suavis.

(REGISTERED.)

An agreeable Aromatic Fluid Extract of *Cascara Sagrada*, possessing the full laxative and aperient properties of the bark.

Sol. Æthyl Nitritis.

Containing 3 per cent. of Pure Nitrite of Ethyl, in Absolute Alcohol and Glycerine.

See paper by Professor LEECH on "The Comparative Effects of Spiritus Ætheris Nitrosi and Solution of Ethyl Nitrite," *Pharmaceutical Journal*, December 22, 1888.

Spiritus Ætheris Nitrosi.

Guaranteed to contain the proportion of Nitrous Ether directed by the British Pharmacopœia.

Æther Nitrosus and Sol. Ætheris Nitrosi.

Respectively 8 and 4 times the strength of the Spirit.

JAMES WOOLLEY, SONS & CO.

Manufacturing Pharmaceutical Chemists,

MANCHESTER.

Laboratories and Drug Mills, KNOWSLEY STREET, CHEETHAM.

QUOTATIONS AND PRICE LIST FORWARDED ON APPLICATION.



ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES:

MELBOURNE AND SYDNEY, AUSTRALASIA.

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Post free to every country in the world. Single copies 4d. each.

Cheques or Postal Orders should be payable to EDWARD HALSE, and crossed MARTIN'S BANK (LIMITED).

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

Supplied regularly to every member of the following Societies, who have adopted THE CHEMIST AND DRUGGIST as their official organ.

The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

Tasmanian Pharmaceutical Society.

Otago Pharmaceutical Association.

South African Pharmaceutical Association.

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OUR SUPPLEMENT FOR SMALL ADVERTISEMENTS.

WE now close this supplement for press on Thursday evening at five o'clock, by which time all advertisements for it should be delivered by hand or post at the office, 42 Cannon Street, London, E.C. The supplement is the most popular medium for situations open and wanted, businesses for sale, and the like. It is inserted in every copy of THE CHEMIST AND DRUGGIST, and we forward it promptly by post to anyone sending us an addressed postal wrapper. Callers may obtain copies at the office on Friday morning, or any time thereafter during office hours.

OUR READING-CASES are admirably adapted for keeping the numbers of THE CHEMIST AND DRUGGIST in compact and handy form. Price 1s. each, by post 1s. 3d., or two for 2s. 3½d.

SUMMARY.

THE Local Government Board, in reporting the results of the analysis of food and drugs in 1890, urge that more attention should be given to the latter.

JUDGE EDGE, of Exeter, has decided that medicines are household necessities, and on that ground has ordered a husband to pay a chemist's bill contracted by his wife.

LAKE pigments formed the subject of an interesting paper by Dr. Weber, read before the Manchester section of the Society of Chemical Industry. We give an epitome of it under "English News."

THE Law Committee of the British Medical Association is to move the Pharmaceutical Society in regard to the sale of poisonous patent medicines. The committee has taken some trouble in the matter, and we comment upon their action.

TEN gentlemen who are ranked in the roll of pharmacists have this year been elected mayors in England, but one of them, Alderman Taylor, of Rochdale, has declined office, as he has done for twenty years past, on a question of principle.

BOTANY was the theme at both of the Pharmaceutical Societies' evening meetings on Wednesday. In London Professor Green gave a popular lecture on the evolution of the flower, and at Edinburgh Professor Balfour gave an interesting discourse on the work and influence of Kew Gardens.

THE inquiry in reference to the use of an empty weed-killer can in which some wine had been made has been concluded. A gentleman had died after drinking the wine, and Dr. Stevenson found from analysis that he had died from arsenical poisoning. The wine contained 5½ grains of arsenic to the oz.

JUSTICE CHITTY has decided that the word "Britannia" is not a proper word for registration as a trade-mark. A soap firm had registered it for soap, &c., and wished to restrain another firm from using it, who retaliated in the orthodox way. The judge has ordered the rectification of the register, deciding for the defendants and giving them expenses.

THE Council of the Pharmaceutical Society of Ireland, at their last meeting, resolved, in accordance with a generally-expressed desire on the part of their constituents, to adopt THE CHEMIST AND DRUGGIST as their official organ. They also agreed to take steps to get a fairer field for their licentiates to compete for dispensing appointments in poor-law unions.

THOSE who advertise will find food for reflection in the successful legal action brought by *Myra's Journal* against the proprietors of Frazer's sulphur tablets. In the same section we give a full report of the hearing and decision in the Scotch High Court of Justiciary regarding the Glasgow tinned peas case. The Court dismissed the appeal against Sheriff Burnie's finding, on the ground that it was not proved that copper is injurious to health.

THE American Wholesale Druggists' Association met at Louisville from October 19 to 21. Convivialities absorbed the greater part of the members' energies, but business loomed as the skeleton at the feast in the shape of the unlaid ghost of the "cutting question." The ghost, after exhibition and inspection, was politely ushered back into his cupboard and sealed up with a long-winded resolution. Next year he will be trotted out again at Montreal.

THE work done by associations during the past week comprises several useful papers read in London, where Mr. J. C. Umney showed that the best ammoniated tincture of ippecacuanha is made with rectified spirit. Here also Mr. Sage showed that London seidlitz powders are not up to the mark, Mr. Ellwood spoke about pyrotechny, and Mr. Harrison on benzeno formulae. At Liverpool Mr. E. Davies had something to say about fats, and at Dundee there was read an amusing and instructive paper on pharmacy in the United States.

English News.

HALF-HOLIDAY.—The chemists of Worthing have agreed to close their establishments until further notice at 5 P.M. on Wednesdays.

CHEMICAL SOCIETY.—At next week's meeting (Thursday), at 8 P.M., Captain W. de W. Abney, F.R.S., will discourse on "Colour Photometry."

ROYAL INSTITUTION.—The Christmas lectures to juveniles will this year be on "Life in Motion; or, the Animal Machine" (experimentally illustrated), and will be delivered by Professor John G. McKendrick, M.D., F.R.S., the professor of physiology in the University of Glasgow.

FIRE IN A DISPENSARY. A fire broke out last Saturday in Dr. Nottingham's dispensary at Copenhagen Street, Islington. Some damage was done to shop-bottles and drugs, and the ceiling and fixtures of the dispensary. The fire was put out without the aid of the fire-engines, and the damage is covered by insurance in the Law Fire Office.

PLYMOUTH NEWS.—Mr. A. P. Balkwill, pharmaceutical chemist, is announced to deliver a series of lectures, under the auspices of the B.H.U., on "Is Alcohol a Food?" to be illustrated by diagrams and chemical experiments in aid of his arguments.—Mr. R. H. Rendle, chemist, of Stoke, announces his intention of opening a branch at Mutley after Christmas.

MANCHESTER PHARMACEUTICAL ASSOCIATION.—Mr. Charles Turner read a paper on "Alkaloids" to the members of the Manchester Pharmaceutical Association on Wednesday night. Our report will appear next week. According to the list issued by the new hon. secretary (Mr. Albert Blackburn), the membership of the Manchester association numbers about seventy.

EXPLOSION IN A CHEMIST'S SHOP.—On November 4, Mr. E. B. Morgan, chemist, of Nechells Park Road, Birmingham, had been serving a customer with some gunpowder, and had found it necessary to open a packet containing about 4 lbs. It is supposed that a spark fell into this and ignited it, with the result that Mr. Morgan was seriously burned about the head and face. The shop was somewhat severely damaged by the explosion.

DEATH OF A CHEMIST AT RAMSEY.—On Sunday afternoon, November 8, William F. Dodgson, was found dead in bed. Mr. Dodgson had a large establishment in Parliament Street, Ramsey. He had been about during the week, but on Friday and Saturday kept to his room apparently unwell; but when a meal was taken to him on Sunday afternoon he was dead. There is suspicion that chloral was used, as a bottle was found in his clothes. An inquest has been ordered.

THE CHICAGO EXHIBITION.—The British commission for the Chicago Exhibition have issued their announcement offering space to exhibitors. A minimum charge of 5% will be made to every exhibitor. For small spaces the rate will be 5s. per square foot, and for larger spaces 4s. 6d., and lower rates down to 2s. 6d. If these payments more than cover expenses, the surplus will be repaid *pro rata*. Goods on exhibition will be received in bond, but duties will have to be paid if the articles are sold. Special terms for carriage will be arranged.

CHEMISTS' AERATED AND MINERAL WATERS ASSOCIATION (LIMITED).—The annual meeting of this company is announced for Monday, November 16, at 3 P.M., at Anderson's Hotel, Fleet Street. The directors report a satisfactory increase of profits at each of their factories, London, Harrogate, and Bristol, the total net profit shown on the balance-sheet being 1,989l. 0s. 1d. Out of this they recommend a dividend of 10 per cent. free of income-tax, which will leave 179l. 0s. 1d. to carry forward. Last year the dividend was 8½ per cent., and 13l. 7s. 2d. carried forward.

CAMBERWELL AERATED WATERS.—Dr. F. Teed, the public analyst for Camberwell, in his last report to the vestry, states that the most flagrant case of adulteration which he

discovered during the past quarter was in reference to some lemonade, in which distinct traces of lead were observable, and in the case of some samples of soda-water when they were put under examination they were found to be absolutely devoid of soda in any shape or form. The doctor complained that the Legislature has made it more difficult to get a conviction against vendors who add poisonous ingredients to their wares than those who adulterate with more harmless ingredients.

PREVENTIVE MEDICINE.—A well-signed memorial has been presented to the General Medical Council proposing that systematic instruction in preventive medicine, to the extent of one course of lectures, should be made obligatory upon all candidates for qualifying examinations. The memorialists consider this a favourable time for making preventive medicine a compulsory subject, as a revision of the curriculum by each of the medical authorities will have to take place in consequence of the introduction of the five years' period of study after January 1, 1892. The memorial has been got up by a committee, for whom Mr. Antony Roche, M.R.C.P.I., Dublin, acted as honorary secretary.

CARRIAGE BY WATER.—On Friday, at the Dartford County Court, Messrs. Pochin & Co (Limited), of Salford, were the defendants in a claim for the carriage of alum to Dartford from the port of London. The question put to the court as to whether the defendants were liable for 2l. incurred by the shifting of a barge from one wharf to another in the Dartford Creek. For the defendants Mr. Ridley contended that the freight in question was contracted for at 2s. per ton, and that therefore no extra charge for the removal from one wharf to another could be made. Evidence, however, having been given of the usage and custom of the trade, a verdict was given for the amount claimed, with costs.

A CHEMIST'S ASSISTANT COMMITTED FOR TRIAL.—On Tuesday at the Burslem Police-court, Edmund Baines, chemist's assistant, William Amos, commission agent, and James Gibson, professional boxer—the two former of Burslem, and the latter of Hanley—were charged with stealing a pair of boots, the property of Silas Gilman, boot-dealer, of Burslem, on November 4. The evidence for the prosecution was to the effect that the two last-named prisoners went to Mr. Gilman's shop to buy two pairs of boots; these were sent to a house and received by Baines. Afterwards it was found that a third pair was missing from the shop, and it was discovered that Baines had pledged these with a pawnbroker for 2s. 6d. All the prisoners were committed for trial.

A GENEROUS FIRM.—The works of Messrs. J. C. Gamble & Sons, chemical manufacturers, St. Helens, were taken over by the United Alkali Company on November 4. The adhesion of this firm brings all the chemical-works of St. Helens and district under the management of the syndicate. Messrs. Gamble signalled the occasion by the gift of 100l. each, in the shape of half preference and half ordinary shares in the United Alkali Company, to 15 of the oldest workmen of the firm. In addition Messrs. J. C. Gamble & Sons have made provision for a weekly allowance to a number of their employes who have been in their service for long periods. Mr. William Gamble made the formal presentations at the Gerard's Bridge Works on November 4, in the unavoidable absence through indisposition, of Colonel Gamble, C.B., and the unexpected generosity of the firm was feelingly acknowledged by the recipients of the gifts.

BRIGHTON JUNIOR ASSOCIATION OF PHARMACY.—At last week's meeting a lecture was given by Mr. Douglas E. Cauth, L.D.S., on "Photo-micrography." The lecturer said there were two methods by which a micro-photo might be taken. In the first the necessary apparatus consists of a light-tight box, in which was enclosed a lamp, a microscopic slide carrier, and the objective from a microscope, no microscope stand being required. These were all placed in the box, and the object projected through an opening in the same way as they used the optical lantern, the object being focussed by bringing the slide nearer or withdrawing it further away from the objective as might be required to reflect a sharp image upon the screen, where the sensitive plate is placed. In the second process a camera is used, the size of the negative being governed by the size of the

camera itself. Mr. Caush took a negative by the camera method in the presence of the meeting, and the process was watched with much interest by the meeting.

THE IRREPRESSIBLE AND INCOMPREHENSIBLE.—The Kensington chemist whose documents have been so liberally circulated has introduced a little variation into his attack. His latest communication runs thus:—

Presidents, Members of Council, Examiners, Local Secretaries, and others are not eligible to convene and address meetings, &c., proven in corrupt practices and illicit influences.

By order of Committee.

G. W. SARGENT.

** The invalidation of the Council elections by Examiners has reopened the question of appointing a new Board. Chairman of invalid election, 1890, Mr. R. Hampson. Scrutineers in illicit practices, 30 Dis. Secretaries and others. Large sums of money continue to be subscribed to the Benevolent Fund for the purposes of carrying on illicit trade and other illicit practices, under false names, including defective storage and transit of inflammables and poisons by wholesalers.

BIRMINGHAM NEWS.—Our correspondent sends us the following items:—

The meeting of the Midland Counties Chemists' Association, which was called for Tuesday next, has been postponed till the following week, to suit the convenience of the gentleman who is to read a paper—Mr. Cripps.

One of our lady dispensers had an effervescent mixture to make up a few days ago, and put all ingredients in the same bottle, corked it, and, while vigorously shaking it, it burst in her hands, causing several severe wounds.

The Pharmaceutical Society are bestowing benevolence in the neighbourhood of Birmingham on the widow and orphans of a well-known but unfortunate and lately deceased local pharmacist.

Professor Hillhouse, professor of botany, Mason College, began a free course of evening lectures to the Birmingham artisans last Monday evening. They were well attended.

Professor Silvanus Thompson delivered his address on "Complementary Colours" at the Midland Institute on Monday, and was well received.

Many Birmingham pharmacists will be sorry to learn that Mr. Penistone, who has charge of the town counter at Messrs. Southall's, is seriously ill with rheumatic fever, and that Mr. Mackerzie, of the Parade, is also very ill with typhoid fever.

The Technical School chemistry class is so full that temporary premises have been rented from the Mason College trustees, in order to improvise benches for the practical students.

Mr. Radford, chemist, Union Street, has introduced the electric light in his shop, and the fittings are very tasteful.

PHARMACEUTICAL MAYORS.—Of the mayors elected to act during the ensuing year ten are pharmacists, five being Conservatives and five Gladstonian Liberals. One of the latter, however, has refused the honour, thus placing his party in a minority of one. The Liberal-Unionist chemists, so far as we have heard, are unrepresented. The following is the list:—Burnley: Mr. William Parkinson (G.L.), chemist and druggist, Curzon Street. Canterbury: Alderman William Mount (C.), pharmaceutical chemist, 2 Palace Street. Chippenham: Alderman J. C. Coles (G.L.), pharmaceutical chemist, Market Place. Hereford: Mr. W. F. Chave (C.), pharmaceutical chemist, 6 Broad Street. Hyde: Mr. Joseph Wild (G.L.), pharmaceutical chemist, Clarendon Place. Nottingham: Mr. Richard Fitzhugh (C.), pharmaceutical chemist, Long Row. Portsmouth: Mr. T. Scott Foster (C.), chemist and druggist and dentist, Commercial Road, Landport. Rochdale: Alderman Edward Taylor (G.L.), pharmaceutical chemist, Yorkshire Street, was elected, but declined the office, and paid the statutory fee. Rye: Mr. Alderman Waters (C.), chemist and druggist, High Street. Wells (Somerset): Mr. Jonathan Slater (G.L.), chemist and druggist, 12 Sadler Street (re-elected).—Alderman Benjamin Robinson, pharmaceutical chemist, who has for two years filled the office of Mayor of Salford, received last Monday, on his retirement from office, a cordial voto of thanks from his colleagues, expressing their sense of the efficiency and urbanity with which he had discharged the duties of the mayoralty. A copy of the resolution is to be engrossed on

vellum, and presented to him. In his reply, the alderman passed in review the many important events that had needed attention during his mayoralty, and spoke gratefully of the help he had received from the members of the council and the officials. He was glad to be able to say on his retirement that he had neither forfeited a friend nor made a foe during his mayoralty.

LAKE PIGMENTS.—The Manchester section of the Society of Chemical Industry held its opening meeting for the session last Friday night. Dr. Schunck, who presided (in the absence of Mr. Levinstein), delivered an introductory address in which he discussed questions relating to technical education and the pollution of the atmosphere of cities by smoke and otherwise. Dr. Carl Otto Weber read an elaborate paper on "Researches on the Formation of Lake Pigments." Starting by defining a lake pigment as the insoluble salt of either a colour-base or a colour-acid, he went on to show that whether basic coal-tar colours are precipitated as free pigments, or applied upon the textile fibre, the chemical process involved remains in principle always the same. He explained that there are two fundamentally different methods of producing lakes from colouring matters, which methods apply respectively to two essentially different classes of colouring matters, and then proceeded to discuss the conditions under which lakes are formed from basic colours. Those longest known are formed with tannic acid, which is used extensively for lake-making proper, and for their fixation upon the textile fibre (cotton). He severely criticised the methods used at present by colour-makers for producing tannic lakes, and endeavoured to prove that these methods result in products deficient in beauty of shade, and still more in fastness to light and atmosphere. These defects are due partly to disassociation of the basic colouring matters employed, but chiefly to ignorance as regards the quantities of tannic acid required by the various colouring matters. With the aid of numerous experiments, Dr. Weber illustrated the fact that in lake-making, as well as in cotton-dyeing, almost invariably an excess of colouring matter is used which adheres to and actually forms part of the lake in such a chemical condition that it is utterly incapable of resisting the destroying influence of light, air, and washing. To enable the colour-maker and the dyer to remedy these serious defects, Dr. Weber has originated a method for the estimation of the quantities of tannic acid required by all the different basic colouring matters known at present. The results of his investigation on this point he showed in a set of most elaborate tables. The most important result to be drawn from these tables is the long-sought-for chemical law governing the formation of these lakes, which law is that with one exception each molecule of colouring matter requires two molecules of tannic acid. From this the dyer is now able to calculate the exact quantities that are required of all the materials used in cotton-dyeing. Dr. Weber went on to discuss the compound lakes, and the progress made therein, through the introduction, by Mr. T. Brooks, of Manchester, of tartar emetic, and exhibited a number of beautiful specimens.

IRISH NEWS.

"DRUGS AT ANY PRICE."—This is how the *Irish Times* entitles a rather mocking paragraph based on Sir James Sawyer's recent lecture on low prices for medicines. In a letter printed a few days later, "One in the Know," and who also appears to be in the swim, improves the occasion by a further homily on the risk of cheap drugs.

FIRE.—Early on Saturday last a fire broke out in the rear premises of Messrs. Boileau & Boyd, wholesale druggists, Dublin. The fire was confined to a newly-erected drying-room. A quantity of drugs was stocked there, and these, as well as the entire structure, were completely destroyed. The damage was confined to the place where the fire originated.

It was reported to the Pharmaceutical Council last week that the Apothecaries' Hall of Ireland have decided on accepting the licence of the Pharmaceutical Society in lieu of the pharmacy portion of their examination for the licence of apothecary only. But what about their Conjoint examination with the College of Surgeons—will they also accept

the pharmacy certificate for this? If not, pharmacists have to thank them for nothing, as the Apothecaries' examination has been practically superseded since 1887 by the Conjoint scheme.

THE NEW PHARMACEUTICAL COUNCIL.—The first council of the Pharmaceutical Society of Ireland elected under the regulations prescribed by the Act of 1890 is now in office, and a brief account of its *personnel* may be of interest. Mr. William Hayes, the President, who was re-elected to the chief office in his absence—for he has accompanied his son on a voyage to Australia, which the latter had been ordered to take for the sake of his health—is one of the original members named in the Pharmacy Act, and is the proprietor of a wholesale and retail establishment in Grafton Street, Dublin, which he established. He is also the principal in the pharmacies trading as McAdam's Medical Hall, Kingstown; Marshall's Pharmacy, Rathmines; and Johnson & Oldham, Grafton Street, Dublin.

Mr. Thomas W. Robinson, the new Vice-President, joined the Council two years ago. He has a very neat and elegant pharmacy at Kingstown, which he formerly managed as a branch of Evans's, Dublin. He is young and full of energy.

Mr. E. M. Hodgson, J.P., Treasurer of the Society, is also an original member, and is the managing partner of the firm of McMaster, Hodgson & Co., wholesale drug and general merchants, Capel Street, Dublin, which is one of the largest drug businesses in Ireland. To his careful management of the funds of the Society is partly due its present satisfactory financial position, and the purchase of the house which is now the pharmaceutical headquarters has long been aimed at by Mr. Hodgson.

Mr. W. F. Wells, jun. (late Vice-President), has established one of the neatest and best-equipped pharmacies in Ireland at Upper Baggot Street, Dublin. Mr. Wells is the son of one of the most esteemed of Dublin chemists and druggists, whose business in Sackville Street is well known. The services of Mr. Wells, jun., to the Society are too familiar to need narrating in this place. Mr. Wells has lately added the manufacture of aerated waters to his otherwise flourishing business.

Mr. Charles Evans, who served as President in 1890, is a partner in the well-known medical establishment in Dawson Street, Dublin, which enjoys a high reputation as "State Chemists," &c.

Professor C. R. C. Tichborne, LL.D., F.I.C., L.R.C.S.I. (also an original member), is analytical chemist to the Apothecaries' Hall, and conductor of the School of Pharmacy established by the Pharmaceutical Society.

Mr. W. J. Baxter is proprietor of a first-class drug and dispensing business at Coleraine.

Mr. G. D. Beggs is the owner of an exceedingly well-fitted pharmacy at Dalkey, which was specially built by him for the purposes of his business. Mr. Beggs was for many years engaged at the wholesale trade.

Mr. P. J. Lyons, who joined the Council last year, has a first class pharmacy at Royal Avenue, Belfast.

Mr. R. A. Burnes, A.B., M.B., B.C.H., T.C.D., holds very high professional qualifications, and is, besides, a really hard-working and earnest pharmacist. Dr. Burnes takes a particular interest in the School of Pharmacy, and is proud of its success.

Mr. Richard Sunner is the representative of the chemists of the city of Cork, where his establishment bears a high reputation.

Mr. A. E. Doran is a prosperous chemist at Bray, co. Wicklow.

Mr. G. H. Grindley has a substantial business at Westland Row, Dublin.

Mr. M. R. Whitla is the principal of an old-established business at Monaghan, and is a brother of Dr. Whitla, the author of the popular "Materia Medica" with which his name is associated.

Mr. George L. McCormack is the young and successful proprietor of an excellent pharmacy and drug business at Monkstown, co. Dublin.

Mr. Joseph Stewart, of Limerick, joined the Council last year, bringing with him the sound experience of a pharmacist who had successfully established a first-class business in Limerick.

Mr. P. Merrin has within the past few years built up a

lucrative business at Lower Camden Street, Dublin. He aspires to the higher branches of the medical profession.

Mr. Johnston Montgomery, of Royal Avenue, Belfast, carries on a successful wholesale and retail business in the northern city.

Mr. Robert Simpson is the owner of a flourishing drug business at Henry Street, Dublin, and is besides proprietor of a wholesale and retail seed warehouse, trading as W. Tait & Co., at Capel Street.

Mr. Samuel Boyd, jun. M.A., the Dublin representative of the Associate Druggists, is managing partner of the old-established wholesale drug firm of Boilean & Boyd.

Mr. Samuel Gibson, the representative of the Associate Druggists of the North of Ireland, is a much respected citizen of Belfast, where he carries on a large drug and general business.

SCOTCH NEWS.

GLASGOW CITY ANALYSTS' SOCIETY.—On Thursday, November 5, the opening meeting of the City Analysts' Society took place in Glasgow, when Dr. Readman, of Edinburgh, read an interesting paper treating of the manufacture of phosphorus by his new process. The source of the phosphorus for this process is mineral phosphate of lime, which is found in abundance in various parts of the world. This phosphate is mixed with sand and treated in a Cowle's electric furnace. The silicic acid of the sand decomposes the calcium phosphate, with the production of silicate of lime and phosphorus, the latter of which distils off and is caught in condensers. The principal advantage claimed for this process is that it renders entirely unnecessary any chemical treatment.

PHARMACY FOR THE GLASGOW UNIVERSITY DEGREES.—In the regulations for medical students it is at present required that a course of fifty hours' instruction in practical *materia medica* be taken, or that students should have two years' experience in dispensing under a medical practitioner, member of the Pharmaceutical Society (Great Britain or Ireland), pharmaceutical chemist, or chemist and druggist registered under the Pharmacy Act, 1868, or the Irish Act of 1875. This matter has been under consideration by the university authorities, who are of opinion that a much shorter period than two years of practical dispensing should be held to be equal to the course of instruction given in fifty hours at the university or elsewhere. From inquiries made amongst practical pharmacists it is reported that this period would be amply sufficient. A body of pharmacists in the city had decided upon recommending six months in lieu of two years.

EDINBURGH CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—At the meeting held last Thursday, November 4, Mr. John Lothian distributed the prizes to the successful students in the various competitions promoted by the association. Mr. R. Robertson (with Mr. C. F. Henry) took the first "association" prize, which is a ticket for Dr. Macadam's chemistry lectures, and Mr. J. M. Cameron (with Messrs. J. F. Macfarlan & Co.) took the second prize. Two botanical prizes were awarded, one to Mr. Th. Weir (40 Dublin Street), for the best report on the excursions, and the other to Mr. J. B. Maclaren (with Messrs. Duncan, Flockhart & Co., Princes Street), who made the best addition to the herbarium. Following these honours Mr. John Findlay gave a demonstration on volumetric analysis, and Mr. Donald McEwan read a paper on field botany. Mr. McEwan mentioned that the association have now 200 specimens of the 1,000 species constituting the flora of the district. Before the meeting separated Mr. John Findlay was unanimously elected vice-president in place of Mr. J. H. Hoseason, now in Manchester.

EDINBURGH NEWS.—Our correspondent reports that the business of Messrs. Nelson & Co. in Morrison Street has been taken over by Mr. Kennedy, dispenser to the Ponton Street dispensary.—The newly-elected Lord Provost of Edinburgh is Dr. J. A. Russell. He does not practise, having private means. He spends a great deal of time in the public service, and has done much towards improving the sanitary condition of the city.—The Scottish Drug Depot had

a fire in their Nicolson Street shop on Saturday last. An assistant, going to the ware-room after dark, had dropped a match near some inflammable material. Little damage was done. This company have let the large place they used for wholesale purposes to Messrs. White, the paper-makers, whose premises were burned recently. This relieves the company of a burden.—Mr. Bertram Prentice, who is associated with Dr. W. H. Perkin, jun., in the investigation on the homologues of pentanetetracarboxylic acid and of pimelic acid, is a young pharmacist, and a late member of the Edinburgh Chemists' Assistants' and Apprentices' Association. The paper on the subject occupies thirty-four pages of the November issue of the Chemical Society's journal.

TWO NEW CHEMICAL-WORKS FOR IRVINE.—We understand that a company has just been formed in the West of Scotland with the object of starting a new chemical manufactory at Irvine in opposition to the Alkali Union Syndicate. The promoter is Mr. Alexander Walker, lately a manager in one of the Irvine works belonging to the syndicate. It is proposed to erect the new factory—where the principal manufactures to be carried on are those of caustic soda and bleaching-powder—between Ardeer and Irvine, adjoining Nobel's Explosives Works. Hitherto the nitre cake used by the Alkali Union in their manufacture of caustic soda has been got from Nobel's, but Mr. Walker has secured from that firm a five-years' contract for the exclusive supply of the nitre for his own factory, and it is to save the cost of carriage of this material that the new works are going to be set down so close to those of the Explosives Company. Another chemical factory in the same district is nearing completion, and will soon be in operation. Mr. Donald, at one time manager in the St. Rollox Chemical Works, and latterly with Nobel's Explosives Company, is at the head of this. It is to be devoted exclusively to the manufacture of bleaching-powder by Mr. Donald's new patent process—by the decomposition, namely, of the hydrochloric acid used in the manufacture of the bleaching-powder by treating it with nitric and sulphuric acid instead of with manganese as in the old Weldon process.

DUNDEE CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—"Glimpses at Pharmacy in the United States" was the subject of a paper read at last Thursday's meeting of this association by the secretary, Mr. William Mair, on behalf of the author, Mr. Thomas J. Keenan, Ph.G., New York, who served his apprenticeship with the late Mr. Dinaghey, Dundee. An interesting comparison was given between the pharmacy laws in the State of New York and those at home, and of the examinations under those laws as contrasted with the Minor. Of the four pharmacy boards in New York State, three recognise the diplomas of colleges of pharmacy incorporated under the laws of the State of New York, and also certificates granted by each other, admitting candidates holding such credentials to registration without re-examination, while the State Board does not accept such, but requires an examination before its own body, all four uniting in demanding of candidates from another State re-examination, regardless of the number of diplomas or credentials these candidates may present in evidence of their having passed successfully college and board examinations. After a minute description of a board examination, and the graduation ceremony which follows it, the author went on to describe some American pharmacies. The inevitable soda-fountain was considered an essential adornment and source of profit in all stores, immense sums of money being expended in the equipment of it and its accessories. In "open-all-night" stores two relays of prescription-clerks are kept, while in other pharmacies, where two relays are not kept, the assistant sleeps in the back shop, with his ears glued to an electric bell, ready to get up whenever called to supply articles and fill prescriptions which, in the majority of cases, are not immediate necessities. The paper concluded with a sketch of the country pharmacist, whose services were frequently called upon to decide on the value of a string of chickens, or, perhaps, size up a waggon-load of water-melons, when not attending to the sale of window-glass and putty or mixing paints. The paper was well received, and it was agreed to transmit to the author the best thanks of the association. Next week's meeting, on November 19, takes the form of a popular lecture, which is to be given on a large scale by Mr. W. L. Howie, F.C.S.,

London. The subject is, "A Visit to Ober-Ammergau and Back in 1890," and it will be illustrated with 120 lantern-slides, photographed by the lecturer, including the famous "Passion Play." The large Giffillan Hall has been taken for the occasion.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

A YOUNG lady, Mdlle. Leclerc, has just passed the examination for the diploma of pharmacien. We believe she intends to open a pharmacy in Paris, and that hers will be the first business of the kind conducted by a lady in this city.

THE PARIS SCHOOL OF DENTISTRY commenced its winter session on Saturday last. Mr. Monod presided at the inaugural meeting, and referred in his speech to the law now under consideration for the regulation of the profession. "If the dentist's diploma," he remarked, "is definitely recognised by the law, it is to the free schools of dentistry that this revolution will be due."

A REDUNDANCY OF MEDICAL LITERATURE.—In a report on the Home Office Estimates, laid before the French Chamber of Deputies by M. Arène, it is incidentally mentioned that at this moment 145 medical journals, and eight papers devoted pharmacy and the drug trade, are published in Paris. Were it not that these figures occur in an official report, they would certainly be rejected as incredible. Of political journals Paris publishes 161.

A CURIOUS ACCIDENT, brought about by the subcutaneous injection of antipyrin, was cited at the last meeting of the Academy of Medicine by M. Verneuil. Two patients under his care suffered from sciatic neuralgia in the lower limbs, and injections were accordingly made under the toes. After the third injection gangrene suddenly set in and extended to the other toes and the foot itself. In one case the affection was almost fatal, but cauterisation and phenic pulverisations arrested the malady. The accident, M. Verneuil thought, must have been the result of a complication of circumstances, but a predisposition to gangrene must have already existed. Dr. Dujardin-Beaumetz said the case quoted was quite exceptional, but he agreed with his colleague's conclusions. When neurotic troubles existed subcutaneous injections, no matter of what liquid, were always dangerous.

A MYSTERIOUS POISONING CASE is reported from Laitre-sous-Amance, Meurthe and Moselle. M. Adelard Viriot, mayor of this village, died on June 3 last, after a short illness, from which his wife, father, and grandson had likewise suffered. His little grand-daughter, absent at a relation's, alone escaped. After M. Viriot's death, his widow caused the floor of his sick-room to be planed, and sent the shavings to the Nancy School of Pharmacy. Chemical analysis proving the presence of arsenic in the invalid's ejections, orders were given for the disinterment of the body, in the viscera of which arsenic was also traced. A cousin and neighbour of the deceased was arrested on suspicion, ill-feeling having existed between them, but he was discharged, as no evidence of guilt was forthcoming. Recently, however, this man's son, in the course of a dispute with a young man from another village, denounced the latter as the murderer of M. Viriot. The young man was arrested, but easily proved his innocence; the matter was, however, thus re-opened, and rumours again circulated. Another inquiry was instituted, and the cousin and his wife are now under arrest.

HEATING RAILWAY-CARRIAGES.—The Northern Railway of France is preparing to make an extensive trial for heating the compartments of its trains by means of acetate of soda. This mode of heating is already known, but the company is to try a new process. The experiment is to be made with 2,200 foot-warmers, of which the side touching the floor of the carriage will be made of wood, as a non-conductor of heat. Hitherto the acetate of soda has been introduced in a solid state in the foot-warmers. These are placed in tubs of boiling water, which causes the chemical to melt. In cooling the acetate of soda solidifies, and during crystallisa-

tion gives off the heat absorbed. In practice, however, it was found that the acetate of soda did not always return its heat regularly, the crystallisation being erratic. To obviate this, small iron balls were introduced into the heaters, which, by the trepidation of the train, agitated the liquid constantly, and equalised the formation of the crystals. In the new foot-warmers the acetate of soda will not be liquefied by immersion in boiling water. The melting process will be accomplished by the passage of a current of hot air or electricity through a serpentine pipe fixed in each foot-warmer. It is estimated that this system will only necessitate changing the warmers every five or six hours, as against every two hours at present.

Foreign and Colonial News.

ADULTERATION IN DENMARK.—Henceforth in Denmark the employment of chemical processes with a view of preventing the detection of adulteration, is to be punishable by fine and imprisonment (from five days' to two years'). In first offences or, where extenuating circumstances can be pleaded, only a fine will be inflicted.

BOTANY IN SOUTH AMERICA.—A botanical expedition, under the direction of Professor Warming, left Copenhagen a few days ago on a botanical expedition to Venezuela and the West Indies. The expedition consists of several well-known geographers and botanists. The first place to be visited will be the island of Trinidad. The object of the expedition is the investigation of the flora of the countries visited and the preparation of a collection of specimens.

THE NEW GERMAN PHARMACOPŒIA.—On Oct. 23 the Medical Committee of the Permanent Commission for the preparation of a revised German Pharmacopœia commenced its sittings, under the chairmanship of Dr. Köhler. The number of new remedies proposed to be placed on the new list was 1,603, but after prolonged consideration only 42 were deemed worthy of official sanction. These will now have to be considered by the pharmaceutical committee.

CHEMISTS IN AUSTRALASIA.—According to *The Chemist and Druggist of Australasia* the total number of chemists on the register of Victoria at the end of last year was 780, on that of New South Wales 507, on that of Queensland 203, on that of Tasmania 113, on that of New Zealand 347. This gives a total of 1,950. There remains South Australia, where it is believed there are about 140 chemists, and Western Australia, where the number cannot much exceed a dozen. These are estimated by our contemporary to represent not more than 1,400 businesses in all the colonies.

THE APOTHEKER LOSES HIS CASH.—Among the creditors, numbering 400 or thereabouts, of the Berlin banking-house of Herschfeld & Wolff, whose failure was the first sensation of the financial crisis through which Germany is now passing, is the proprietor of the Kronen-Apotheke, whose business is located in the same house, Friedrichstrasse 160, in which the bankrupts had their offices. It may be some consolation to the worthy apotheker that in the creditors' list he figures cheek by jowl with many of the proudest aristocrats in Germany, but, as Mr. Leland says, "I dells you it gots him dear!"

U.S. DRUGGISTS AND THE LIQUOR TRADE.—The State Attorney is proceeding against Druggists Firey, Lacey, Scott, and Sabin, of Aberdeen; Cook, of Warren; Pettingill, of Frederick; and Burnham and Collins, of Groton—all in South Dakota—to recover from each and their bondsmen the sum of \$1,000, given in bond that unlawful sales of liquors would not be made. The State Attorney claims he has a strong case in each instance, and that proceedings will be vigorously pushed. The druggists are stirred up over the matter, and doubtless will combine to protect themselves. So says the *Minneapolis Journal*.

THE BACILLUS THEORY AMONG THE ANCIENT MEXICANS.—Dr. Vallot, of Yuratan, in Mexico, while investigating certain hieroglyphic writings of the Meya Indians, came upon a passage which appears to show that the bacillus theory was well-known to this tribe in ancient times. It

reads as follows:—"If one boils the yellow root of the Kokohché plant and drinks the infusion, all those invisibly small animalcules which are generated in the human body are destroyed thereby." It is a well-known fact that the highly civilised ancient Mexicans excelled in the power of observing and investigating natural phenomena, an attribute to which Humboldt and other travellers have borne appreciative testimony.

SALVAGE SPICES.—A fire occurred recently in a great New York store. Damage was done to the extent of \$250,000, and among the salvage were many thousands of pounds of coffee, spices, and other edibles, which were advertised for sale by the underwriters as being slightly damaged by water. On the morning of the sale the assurance adjuster was beset by uneasy doubts as to how far the water which had damaged the edibles had been impregnated by chemicals stored in the same building, and a chemist was asked to test the goods. The discovery was speedily made that the upper floor of the building contained thirty kegs of white arsenic, and a hundred or so of blue vitriol, which had been thoroughly drenched with water, which had then gone through a lot of coffee, spices, and tamarinds on the lower floor.

THE CONDITION OF THE DRUG TRADE in Canada, while not all that could be desired, is still infinitely more satisfactory than in the United States. "It cannot be said," remarks the *Montreal Pharmaceutical Journal*, "that this branch of trade is 'over-done' throughout Canada, while it may be claimed to the contrary in some localities. The older-established businesses in both Toronto and Montreal are complaining of the almost numberless competitors now in the field, and there is no doubt but that the new stores, which have been opened during the past two years, are dividing up the trade to an alarming extent in these centres. There is at present, certainly, no room for more, and it would appear to be time to caution young men against the increased risks of starting in business, in either city, under existing circumstances." However that may be, there are plenty of new starts all over the Dominion, and it is surprising where all the young druggists come from.

HYGIENE IN THE CONGO REGION.—A prize of 25,000*fr.* (1,000*l.*), provided by King Leopold of Belgium, is offered for the best essay dealing with the following subjects:—The determination of the meteorological, hydrological, and geological conditions of Equatorial Africa from a sanitary standpoint. Upon our present knowledge of these conditions are to be laid down the elementary hygienic rules which should be observed in equatorial Africa, and the manner of life, food, labour, dress and dwelling most conducive to health and well-being there. The diagnosis, etiology and pathology of the diseases peculiar to Equatorial Africa, as well as the treatment to be followed for their prevention and their cure, and the principles which should guide the selection and the employment of remedies and the establishment of hospitals and sanatoria are also to be described. The competitors are invited, in their scientific researches and practical conclusions, to consider particularly the conditions of life of white men in the various parts of the Congo Basin.

ALLEGED OPIUM-SMUGGLING RING IN THE UNITED STATES.—Startling disclosures, says the *New York Shipping and Commercial Review*, are promised in regard to the smuggling of opium into the United States from the British possessions. It is said that after six months' investigation, officers of the secret service have made a ponderous report to the Treasury Department, showing the existence of an opium-smuggling ring which includes many prominent men and United States Government officers, and which in extent has not been equalled since the famous whisky ring of 1876. At least two United States senators and five congressmen are said to be implicated. Our contemporary thinks that this sensational report is exaggerated, and is one of similar reports sent out from Washington periodically to give a favourable impression of the Internal Revenue officers, and to show that they are trying to earn their salaries. "The Internal Revenue Department," it declares, "has been promising 'startling disclosures' in the opium trade for some years, and it is about time that the story was being unravelled. Let us have the disclosures, or else put an injunction on the literary bureau to prevent it from grinding out such nonsense."

Pharmaceutical Society of Ireland.

ON Wednesday, November 4, the monthly meeting of the Council was held at the Society's house, 67 Lower Mount Street, Dublin—the Vice-President, Mr. T. W. Robinson, in the chair. The other members of the Council present were Messrs. Hodgson (Treasurer), Beggs, Charles Evans, W. F. Wells, McCormack, Boyd, Lyons, Grindley, Dr. Barnes, and Simpson.

MISCELLANEOUS CORRESPONDENCE.

A letter was received from Mr. David Morrow, stating that he intended to present himself at the examination for the licence, and had served three years and eight months with a registered druggist; and he desired to know whether he could complete the required term by serving two years and four months with a pharmaceutical chemist.

Mr. BEGGS: Certainly.

The Registrar was directed to reply in the affirmative.

A letter was read from Mr. Richard Blair, of Cork, enclosing a subscription, and asking to be proposed a member of the Society, upon the condition that *THE CHEMIST AND DRUGGIST* was supplied to him.

A letter was read from Mr. W. J. McNeight, associate druggist, asking that a subscription which he had paid on behalf of Mr. Daniel Brogan, associate druggist, should be refunded.

The Registrar explained that Mr. McNeight had included Mr. Brogan in a number of gentlemen whose election as associate druggists he proposed, and had paid subscriptions *in globo* for all, not knowing that Mr. Brogan had previously paid his subscription in the month of February, which, however, only covered the balance of the financial year.

Mr. BOYD said the case would be met by informing Mr. McNeight that Mr. Brogan would not be an associate next year unless the second guinea was paid.

A letter was read from a candidate at the October Preliminary examination who had been rejected, asking, Could he be allowed to present himself at the Preliminary examination to be held next January?

Mr. WELLS: You cannot allow him to come in sooner than six months after the examination at which he was rejected.

The Registrar was directed to write to the gentleman to that effect, but further informing him that he could go in at the next examination on the old curriculum if he should so desire.

A donation was received from the Mason Science College of a copy of their calendar for the session 1891-2, for which the thanks of the Council were voted.

A number of reports were discussed and adopted.

PUBLIC DISPENSING APPOINTMENTS.

The VICE-PRESIDENT said the next business was the consideration of the following resolution which was passed at the general meeting of the Society, held in October:—

That the Council of the Pharmaceutical Society use every means in their power to secure the rights of their licentiates to public dispensing appointments for which they are qualified; and, in order to do so, that they communicate with the Local Government Board with a view to the general amendment of the warrants still unamended, and that a direction be asked from the Local Government Board as to the duties of persons holding such appointments.

Mr. WELLS said the resolution was passed in reference to an appointment made at the Grand Canal Street Dispensary of the South Dublin Union. The Dispensary Committee advertised for a "pharmaceutical chemist or apothecary," and they appointed an apothecary in consequence of a letter which was written to them, stating that if they required a gentleman to perform the double duties of dispenser and prescriber they should appoint an apothecary. To that the Council had nothing to say. All they desired was to place their licentiates in such a position that all the appointments as dispensers in poor-law unions throughout Ireland would be legally open to them. He found that, under the existing regulations, even if the committee at the election in ques-

tion had appointed a pharmaceutical chemist, the Local Government Board would not have ratified the appointment. In proof of this, he would read a letter from the Local Government Board, dated September 14, 1931. The letter referred to the proposed appointment of a compounder of medicines for the Grand Canal Street Dispensary, and proceeded:—

I am to point out that the order under the seal of the Local Government Board at present in force provides for the appointment of an "apothecary" as the compounder of medicines at the dispensary in question. I am to add that in the case of a dispensary where a sealed order is in force authorising the appointment of an apothecary only, a pharmaceutical chemist cannot be appointed to discharge the duties except the original sealed order be previously withdrawn or amended, which is only done on application to the Local Government Board to that effect, and no such application has been made by the South City Dispensary Committee.

Sir George Owens spoke to him (Mr. Wells) on the matter, and on his telling him that a sealed order was in existence, he said he did not know anything about it, and that had a pharmaceutical chemist obtained a majority he would have declared him elected. Another member of the committee told him (Mr. Wells) that he never heard of the order, and that he voted for the pharmaceutical chemist, and he promised that if he found that such a sealed order was in existence he would do his best to have it repealed. He (Mr. Wells) now asked the Council to adopt the following resolution:—

That the Local Government Board be requested to receive a deputation from the Council in re the appointment of dispensers to the poor-law unions.

If it should turn out that the Local Government Board had no power to approach the unions in which sealed orders existed, the deputation could at all events get a list of those unions, and the guardians could be written to pointing out the difficulty they would be in some day if they did not get the sealed orders repealed. But, as the matter now stood, if the pharmaceutical chemist had been chosen at this election, it would not have been ratified by the Local Government Board, and the guardians would have had to apply to get the sealed order rescinded and afterwards to advertise a fresh election, which would have taken about two months.

Dr. BURNES: The Local Government Board would place us in a peculiar position if they were to tell us to wait on all the poor-law unions in Ireland and ask them to get the orders repealed.

Mr. WELLS: The Local Government Board told us that they had no power to ask them to withdraw the sealed orders. I believe the reason of the orders is that they only wanted apothecaries to fill the appointments.

Dr. BURNES: It never was intended to be a slight upon pharmaceutical chemists.

Mr. WELLS: Never; because you have a letter from Mr. Banks stating that our men are perfectly eligible for the appointments, but if we don't point out to the unions that the sealed orders are in existence you will never get them repealed. In the case in question the committee did not know that the order was in existence.

Mr. BEGGS seconded the motion of Mr. Wells.

Mr. WELLS read a letter of the Local Government Board of October 9, sanctioning the appointment of Mr. William R. O. Barker as "compounder" of medicines for the Grand Canal Street Dispensary.

The VICE-PRESIDENT suggested that it would be better to write to the Local Government Board without sending a deputation, but Mr. MCCORMACK and Mr. HODGSON thought it would be better to have an interview.

The motion of Mr. Wells was then put, and unanimously agreed to; and, on the motion of Mr. BEGGS, seconded by Mr. LYONS, the following gentlemen were appointed a deputation to wait on the Local Government Board:—The Vice-President and Messrs. Hodgson, Wells, and Grindley.

"THE CHEMIST AND DRUGGIST" APPOINTED OFFICIAL ORGAN OF THE SOCIETY.

The VICE-PRESIDENT said the next business on the agenda paper was the consideration of the resolution passed at the annual meeting to the effect that *THE CHEMIST AND DRUGGIST* should be adopted as the official organ of the Society.

Mr. WELLS said they were all aware that the Council had discussed this matter on a few other occasions and were strongly of opinion that a pharmaceutical society should have the *Pharmaceutical Journal* as its organ. But the Council had been written to several times within the last few years by their licentiates asking them to adopt THE CHEMIST AND DRUGGIST, and gentlemen would remember the letter which they had heard read earlier in the meeting. The matter was considered at the annual meeting, with the result that eight or nine members declared themselves in favour of the *Pharmaceutical Journal*, and only a few more in favour of THE CHEMIST AND DRUGGIST. But that was hardly a fair result, because the discussion of the subject, after having been begun, was postponed until after the scrutiny was taken in relation to the election of the new Council, and when the question was put it was after eleven o'clock, and most of the members had gone away. But in obedience to a direction from the Council the Registrar sent queries to every member of the Society, and also to every associate, asking for their opinions. Something over 200 queries had been sent out, and 168 replies had been received. Of these, 125—viz., 75 pharmaceutical chemists and 50 druggists—were in favour of THE CHEMIST AND DRUGGIST; 32 pharmaceutical chemists and 2 druggists were in favour of the *Pharmaceutical Journal*. One of the replies asked the Council to adopt the three journals, and let each subscriber take whichever he liked best. But that could not be done. The Council would have to adopt one of the journals. The editor of THE CHEMIST AND DRUGGIST was prepared to give them very favourable terms if they adopted his journal, but if they adopted all three journals, he would not give them his at less than 10s. a head. He (Mr. Wells) thought they should be largely guided by the wishes of their subscribers in the matter. Some of their licentiates had said that if THE CHEMIST AND DRUGGIST were adopted they would cease to subscribe. He should be sorry if they went that far, for he thought it was their duty to support the Society, not on account of the journal they got, but on account of the good the Society did them. However, they could not please everybody. THE CHEMIST AND DRUGGIST was a well-conducted journal, and in a trade point of view would be far more serviceable to their members and associates than the *Pharmaceutical Journal*. For those who were purely pharmacists, no doubt the *Pharmaceutical Journal* would be the better paper. He now moved that THE CHEMIST AND DRUGGIST be adopted as the official organ of the Society from January 1, 1892. Last year, when they were contending, the *Pharmaceutical Journal* did not write a single article to help them. Had they done so it would have been of great benefit to them in the House of Commons, because the other journals were writing very strongly against them, and the articles they wrote were brought into the House and shown there. He (Mr. Wells) had a conversation a few days ago with the editor of THE CHEMIST AND DRUGGIST, who said to him, "Do you think that if we become your official organ we shall have to swear by everything you say?" His reply was, "No; but if you become our official organ, and if things crop up against us, we expect that you will help us."

Mr. GRINDLEY said he seconded the motion with great pleasure.

Mr. HODGSON said he did not oppose the motion. At the same time, he was of opinion that the *Pharmaceutical Journal* was more in accordance with the status of the Society than a mere trade journal.

Mr. SIMPSON: Yes; that has been our opinion all along from the very first. No doubt being the Pharmaceutical Society of Ireland we ought to keep ourselves as much in alliance with the Pharmaceutical Society of England as we possibly can. It will certainly keep our status with the members of the English Society very much higher than if we adopt THE CHEMIST AND DRUGGIST. I am sure every pharmaceutical chemist in Ireland has the same feeling. It has been so in all the past discussions. But every word that Mr. Wells has said as to the trade journal is true, and if we don't adopt it it is very likely that we shall lose a great many of our subscribers.

Mr. MCCORMACK: I think we ought to take the views of the majority of our members. The majority are in favour of THE CHEMIST AND DRUGGIST.

Mr. SIMPSON: It will lower our status.

Mr. MCCORMACK: I don't know that.

Mr. BEGGS: I don't think it.

Mr. WELLS: I can't overlook the fact of our subscribers being in favour of THE CHEMIST AND DRUGGIST.

Mr. LYONS: As far as the North of Ireland is concerned the chemists there are almost entirely in favour of substituting THE CHEMIST AND DRUGGIST.

Mr. WELLS: Of course, we owe the *Pharmaceutical Journal* a good deal, for they have given us their journal for some years at a loss to themselves, but I don't think they care very much whether they supply us or not.

Mr. GRINDLEY: As a matter of fact, they never helped us in any way.

The motion of Mr. Wells was then put, and carried *nem. con.*

THE SOCIETY'S SCHOOL OF CHEMISTRY AND PHARMACY.

The VICE-PRESIDENT moved, pursuant to notice, that the Senate of the Royal University of Ireland be asked by memorial to inspect the Society's school of chemistry and pharmacy with a view to accepting its certificate. It would be a great advantage to the Society if the certificates of its professors were accepted by the University.

Mr. WELLS seconded the motion, which was agreed to.

ATTENDANCE OF MEMBERS OF THE COUNCIL.

Mr. BEGGS moved that in future the attendance of the members of the Council at the several meetings of its committees be printed in the annual voting-papers. The practice which he recommended was followed with advantage in the Dalkey township.

Mr. GRINDLEY: It will be a step in the right direction to give the attendance at the committees.

Mr. WELLS seconded the motion, which was unanimously carried.

LICENTIAE APOTHECARIES.

Mr. WELLS moved, pursuant to notice, that an addition be made to regulation "Finance No. 2," at page 93 of the calendar. The regulation as it stood was as follows:—

The fee for a Licentiate of the Apothecaries' Hall of Ireland to be registered as a pharmaceutical chemist shall be three guineas.

He proposed to add after the word "guineas" the following words:—

But such apothecary shall not be registered unless he shall give evidence to the satisfaction of the Council that he has served a *bond-fide* engagement for a term of four years as apprentice or assistant with, and in the sole employment of, a pharmaceutical chemist or apothecary keeping open shop.

He did not make this motion out of any ill-feeling towards the Apothecaries' Hall, but simply for the purpose of redressing a great wrong which was suffered by their licentiates, and also by the public. At the time when the existing regulation was made, the apothecary, before he got his diploma, had to serve an apprenticeship with an apothecary who kept open shop. Now, under the system of the Conjoint Scheme, it was only necessary for the candidate to produce a certificate of having passed through a course of three months' training in practical pharmacy. That might only mean that the gentleman had gone to some hospital, or to a lecture, for an hour twice a week during the three months. He was sure that the governors of the Apothecaries' Hall would see that it was a great wrong, both to pharmaceutical licentiates and to the public, that men trained in that way should have the same qualification as men who had to work hard for their qualification as the Society's licentiates. The latter had to go through four years' professional study, which included 100 hours of practical chemistry; and, after having paid their money and passed their examinations, they were registered as pharmaceutical chemists. The other men, who were really trained as medical practitioners, were registered as such, and then came there, paid their three guineas each, and got registered as pharmaceutical chemists. Then one of these gentlemen was looked on as a doubly qualified man; and they had him putting up for an appointment as a dispenser, although he might know nothing of pharmacy.

Mr. SIMPSON said he had much pleasure in seconding the motion. This matter had been under discussion amongst the

apothecaries themselves, and they were coming to the conclusion that the three months' training in practical pharmacy was too short.

The motion was put and carried.

THE PHARMACEUTICAL LICENCE AND THE APOTHECARIES' EXAMINATION.

The VICE-PRESIDENT, by permission of the Council, read the following letter which had come too late to be mentioned in the agenda paper:—

Dublin, November 3, 1891.

SIR,—At a meeting of the court held on October 30 the following resolution was passed, which I have much pleasure in asking you to lay before the Council of the Pharmaceutical Society at their next meeting:—"That the licence of the Pharmaceutical Society of Ireland be taken in lieu of the certificate in practical pharmacy from candidates seeking the 'Special' licence of the Apothecaries' Hall, and that a candidate possessing the 'Pharmaceutical Licence' shall be exempt from examination in practical pharmacy."

I am, dear Mr. Ferrall,

Sincerely yours,

ROBERT MONTGOMERY, M.R.C.S.E.,
Secretary and Registrar.

Mr. CHARLES EVANS moved that a reply be sent to Dr. Montgomery, thanking him for his courteous letter, and expressing a hope that the Council would receive a further communication from the Conjoint body.

Mr. BEGGS seconded the motion, which was unanimously agreed to.

EXAMINERS.

On the motion of Mr. MCCORMACK, seconded by Mr. BEGGS, Dr. Cosgrave, Dr. Falkiner, and Dr. Montgomery were re-elected examiners.

MEMBERS AND ASSOCIATES.

On the motion of Mr. BEGGS, seconded by Mr. WELLS, the following gentlemen were elected members of the Society:—Mr. Edward J. Boileau, 3 Prince of Wales Terrace, Balls Bridge, Dublin; and Mr. Maurice J. O'Connell, 8 North Strand Road, Dublin.

On the motion of Mr. WELLS, seconded by Mr. MCCORMACK, Mr. John Baxter, of Ballmoney, was elected an associate-druggist.

On the motion of Mr. GIBSON, seconded by Mr. WELLS, the following were elected associate-druggists:—Messrs. John Gray, Armagh; Patrick Gribben, Magherafelt; William Maxwell, Londonderry; Samuel M. Reid, Belfast; Robert Spence, Castleblaney; and Jacob Walsh, York Street, Belfast.

On the motion of Mr. WELLS, seconded by Mr. BEGGS, Mr. William H. Griffin, 29 Mount Pleasant Square, Dublin, and Mr. Richard Blair, Cork, were nominated for membership of the Society.

Mr. Alfred Clements, of Cootehill, was nominated for election as an associate-druggist.

Some financial business having been disposed of, the Council adjourned.

DEATHS.

HATRICK.—On October 31, 1891, at his residence, Pollokshields, suddenly, Mr. Robert R. Hatrick, pharmaceutical chemist, senior partner in the firm of W. & R. Hatrick & Co., wholesale druggists, Renfield Buildings, Glasgow.

THOM.—The death is announced of Mr. John Thom, J.P., of Birkacre, Lancashire, at the age of 75 years. Mr. Thom was a member of the firm of M'Naughton, Barton & Thorn, bleachers, &c., of Birkacre, at which place he had, previous to 1852, carried on business as a chemical manufacturer.

DISCOVERY OF VANADIUM DEPOSITS.—It is said that official communications have been received in Washington to the effect that in the Argentine province of Mendoza a deposit of the exceedingly rare metal known as "vanadium" has been found. Vanadium, which is used to some slight extent in the dyeing of silks and woollen goods for the purpose of fixing the colour, has hitherto been one of the rarest and most costly metals, and was only known to exist in the Ural mountains. Its present value is about 48s. per oz.

Pharmaceutical Society of Great Britain.

NORTH BRITISH BRANCH.

PROFESSOR BALFOUR ON KEW GARDENS.

THE opening lecture of this session was delivered on Wednesday evening by Professor I. Bailey Balfour, of the Edinburgh University. There was, owing to the inclemency of the weather, a rather small attendance. Mr. J. L. Ewing, chairman of the Executive, presided. The Chairman, in introducing the professor to the meeting, spoke of distinguished services which, during his career at Glasgow, Oxford, and Edinburgh, he had rendered to botanic science. Professor Bailey Balfour began his address by saying it would be known to all the members of this Society whom he had the honour of addressing that one of the most remarkable of the many achievements of chemical research in these later years of the nineteenth century was the manufacture of substances hitherto derivable only from the organic world. The extension of such synthetical methods and their application on a large scale in the preparation of materials of great commercial value were productive of far-reaching results alike constructive and destructive; for if, on the one hand, the whole world benefited by an increased supply and the cheapness of the new product, on the other hand, individuals and localities concerned in colour-making from natural substances might suffer by the annihilation of an industry, and its concomitant ramifications. As an illustration in point the case of madder and alizarin arose in one's mind, and no more striking one could be found. Coal-distillation had grown apace, and the industry might now be regarded as in great measure superseded. In this, however, as in every instance, man still sought his goods from the plant-world. He drew upon the past in preference to the present, utilising the vast stores of organic matter laid up by nature at epochs when there was no one to cull the plant-riches which clad the earth in profusion. And if modern chemistry had done such things who could say where its limits would be? Was it too much to anticipate—as, indeed, some did—that amongst the triumphs that awaited the investigator of the future was the synthesis of protoplasm itself, and thereby to discover its constitution and illustrate the various chemical and physical phenomena exhibited in its life? But however Utopian or otherwise were their views of

THE POSSIBILITIES OF CHEMICAL RESEARCH.

they might all rest assured that for many years, far beyond the prospect of any one of them there, the plant-world would be a fount from which would be drawn a large proportion of our drugs, as well as other useful products, and the link, so old and so strong, between pharmacology and botany was in no danger of severance. At the same time, there was some satisfaction in the contemplation of the capacity and the resources of chemistry to replace in a measure natural products. Thus they might look to the artificial for supply, for man was prodigal, and the more so in the midst of plenty. Thrift was one of those good habits which required a deal of training to enforce; and many of them would not be altogether unfamiliar with the cry in regard to the exhaustion which was constantly in progress of drug-plants—and not only of these, but of the sources of many other products. Now it was timber; at another time it was fibre; then caoutchouc, and so on. In every case there was improvidence, and the destruction of God's gifts, which, if unchecked and counteracted, must have a natural ending. Such a prospect, no doubt, was most pleasing to the pessimist, and the possibilities it opened up might delight his soul in the confirmation of his conviction that everything was going to the dogs; but he fancied they would, with him, prefer to have some faith in the compensating powers of nature, even with the intelligence of man thrown into the scale. He ventured therefore, to think it would not be without interest to them to hear something of what had been and might be done to avert the catastrophe predicted, and accordingly he thought he might carefully direct their attention to some of the researches which botanical science had rendered to pharmacology, and indicate to them the ripe promises that existed

for a continuance of an increasing ratio of such services in the future, in the way especially of safeguarding to posterity, bringing within reach of a wider circle of humanity, blessings, in the way of economic products man now reaped from the vegetable kingdom.

OLD BOTANIC GARDENS.

The professor spoke of the relationship between botany as taught in the universities and pharmacology, and, proceeding, said that pharmacy rising to the rank of a profession required its own institutions for the adequate promotion of its interests—institutions of which their Society was so noble a representative. Leaving out of sight the botanical gardens mentioned in classical times, and of which they could now learn so little that was definite, the earliest gardens for the study of botany with reference to pharmacology were created in Italy through the munificence of the Italian nobles to whom one owed so much for the enlightened encouragement. The Duke of Ferrari and other nobles of the sixteenth century not only founded gardens for the cultivation of drugs, but also sent emissaries to other parts of the world to collect seeds and plants for their gardens. But their policy in cultivating plants was soon abolished by public institutions, and the newly-founded universities in Italy established gardens for the benefit of their institutions. Bologna, Padua, Pisa, followed in rapid succession. In the sixteenth century in this country there was only one garden of the kind—that of John Gerard, near London. The first public garden was at Oxford, founded in 1633 by Earl Denby, of which the famous Robert Morrison was the first custodian. That of Edinburgh followed in 1670, and it would not be uninteresting to them if he referred to the facts of its foundation, as it brought out so clearly its connection with pharmacology. The professor at some length detailed the Edinburgh garden's history, pointing out that for some years there was near the present college a garden cultivated solely for the purpose of supplying drugs. Then a garden—40 feet square of the King's garden—was secured at Holyrood by Drs. Balfour and Sibbald. In 1676 the Town's garden, or physic-garden, was founded. In 1700 another garden was founded near the present university. These three were in one direction, but in 1724 the garden at the university became a pharmaceutical garden only. The whole of these gardens were transferred to Leith Walk in 1763, and in 1821 they came down to their present position in Inverleith Row. Referring to other gardens, Professor Balfour pointed out Chelsea Garden, founded by the apothecaries in 1673, and the foundation of botanic gardens in the Colonies—that of St. Vincent in 1764, and that of Jamaica at the end of last century. Passing on, he showed that the idea underlying these early gardens did not govern the work of other gardens, nor did it guide the policy of even the later ones. As teaching became divorced from the older lines, so also, in many instances, did gardens lose their significance in relation to pharmacology, and this partly from the fact that commercial enterprise provided a substitute for them, and partly also because the public taste for horticulture became whetted. They became centres of enjoyment and resort, and of the culture of plants. So it continued until 1840, from which year dated

A NEW ERA.

In 1841 the Royal Gardens at Kew became the property of the nation. Referring to the history of Kew, the professor pointed out that for many years there had existed a garden at Hampton Court: but some members of the royal family had established a botanical garden at Kew in the middle of the eighteenth century, and to them were introduced many of the finest new plants of horticulture collected by travellers in different parts of the world. During the reigns of George IV. and William IV. these gardens were comparatively neglected, but on the accession of Her Majesty the Queen a committee was appointed to consider their condition and their future. Fortunately for science, Dr. Lindley was entrusted to draw up a report regarding them, in which, referring to the position that national garden should occupy, he said:—

"It ought to be a centre round which all minor establishments of the same nature should be arranged. They should all be under the control of the chief of that garden, acting

in concert with him and through him with one another reporting constantly their proceedings, explaining their wants respecting their studies, and aiding the mother-country in everything that is useful in the vegetable kingdom. Medicine, commerce, agriculture, horticulture, and many valuable branches of manufacture, would derive much benefit from the adoption of such a system. From a garden of this kind Government would be able to obtain authentic and official information of plants connected with the new colonies. It would afford the plants there required without its being necessary to apply to the officers of private establishments for advice and assistance."

The result was that Sir William Hooker was appointed the director of the Royal Gardens, and immediately set himself, with characteristic industry, to work out the thorough-going scheme laid down in Dr. Lindley's report. The cultivation of economic plants was carried on as a special feature of the garden. A museum was instituted, in which the various products in all their stages were exhibited, and the herbarium and library, as an index of the vegetable kingdom, were created. In this way Kew had grown to be what it is now in this

ITS JUBILEE YEAR.

It is the centre of a system, a practical botanical clearing-house for the Empire. Few visitors to Kew had any conception of the function which it really performed and he proposed now to take one or two instances, or cases, to illustrate its value as a national institution. Thus, cinchona, native of the Andes, was in great danger of being exterminated, therefore an expedition, under the auspices of the Indian Government, was sent out to South America. Plants were brought from there, first of all, most of them, to Kew, cultivated there, and sent to India. The result now was that cinchona cultivation was one of the most remunerative cultivations of the Indian Government, and had brought quinine within the reach of a vast number of people who had no chance of getting it before. From there it had gone to Ceylon, being introduced there by Kew. Further, a certain number of the plants collected in South America were sent to Jamaica, and there cultivated in the garden, and now cinchona was another of the most profitable industries in the island. Another instance was ipecacuanha, which was a plant indigenous to Brazil. It was cultivated as far back as 1830, and there was great danger of its extermination in the forests of Brazil, and therefore it was thought that its cultivation might be introduced into India. In this work Edinburgh played a very important part in connection with Kew. The plant naturally propagated itself very slowly, and when Edinburgh was applied to for plants, Mr. McNab experimentally tried the cutting-up of the roots, and found that these would strike cuttings. The result was that the plants were multiplied very rapidly. Further, Mr. Lindsay, the propagator, made the discovery that the plant had the property of sending out buds from its leaves, and that also facilitated the propagation. Plants from Kew and Edinburgh were sent to India, but unfortunately the climate in which they were cultivated at Darjeeling and Ootacamund did not suit it, and the cultivation had never proved a success in India. But as showing how failure in one place might be followed by success in another, some plants from India were transferred to Singapore at the end of the seventies. By the year 1887 the plant had grown so luxuriantly that samples of the ipecacuanha-root from the Straits Settlements appeared in the London market; and it might be considered, therefore, that the cultivation of ipecacuanha in that quarter of the world would in the future be a profitable industry. Referring next to

LIBERIAN COFFEE,

Professor Bailey Balfour said they would be aware that a few years ago the Ceylon planters suffered heavily by the disease which attacked their coffee-plants so much now that coffee-planting in Ceylon was almost an extinct industry. On the West Coast of Africa, however, another species of coffee, "*Liberica*," was found, differing in its habit from "*Coffea Arabica*," which had hitherto been cultivated in Ceylon. Plants of this were obtained by Kew, and were sent to different colonies—in, however, only experimental quantities; but this action served to draw attention to the matter, and now this coffee was planted

in many parts of the world, especially in the West Indies, and the result was a remunerative industry. He might further refer to the kola-nut, of which they hear so much nowadays. The seeds of this plant, which grow only on the West Coast of Africa, had been distributed by Kew to gardens all over the world, and the cultivation of the plant had now become abundant in many colonies. The most recent success of Kew in this respect had been the introduction of the gambier plant to the West Indies. This valuable tannin substance was obtained from a plant which was only found in the East Indies, and the supply of this had been recently very scarce, and the price had gone up largely in the market. Plants were obtained by Kew and cultivated, and a stock had been sent to the West Indies, where they were now successfully grown. As he had shown, Kew did not always attain success. Sometimes what had been a success became a failure owing to the apathy on the part of those to whom plants were sent. As an illustration of that order he mentioned the cultivation of the oil-palm at Labuan, West Coast of Africa. Some years ago seeds were sent to Labuan from Kew. The palms grew, and might have been a source of a most productive industry; but, owing to a want of interest, a few years ago the plants were all grubbed up. But, besides acting as a centre through which a new plant might be introduced into new colonies, Kew also performed an important function in

STIMULATING THE COLONIES

to further industries, and this it did by directing them in the way of founding botanical stations. All of them were aware of the backward condition of industry in the West Indies. It was one of the triumphs of the administration of Kew that within the last ten years a different complexion had been cast upon their industrial future. Since 1884 the activity of Kew had been unceasing in the way of promoting the interests of planters in the West Indies. Botanical gardens or botanical stations had been founded in no less than seven different islands: three of these amongst the Windward Islands—Grenada, St. Vincent, and St. Lucien and four of them in the Leeward Islands—Antigua, Montserrat, Dominica, and St. Kitts. These stations would act as subsidiary schools from which the plants would be sent out to the planters in the various parts of the islands; and it was evident that great results might be expected by this procedure. And not only in the West Indies, but also in West Africa was Kew carrying out good work. Similar stations had been founded at Lagos, on the Gold Coast, and at Gambia. It would, he thought, be evident from what he had said that whatever had been the relationship of botany and pharmacology in the past the link was now closer than ever it was. Under the splendid organisation which existed at Kew they had a federation with all the botanical gardens of the Empire; and when they looked at the map and saw to what an enormous extent the British possessions covered, the great range of climate and soil, and the extent to which botanical enterprise was developed, they would agree with him that, so far as drugs were concerned, they need have no anxiety regarding the exhaustion of the supply of any one of them. He had only referred to the work of Kew in connection with drugs, but not only in connection with all plants of economic value was the enterprise of Kew concerned. He might speak to them of the work it had done in connection with the discovery of the various diseases which have attacked plants, and the suggestion that was made for remedies for these, but time failed him. In bringing before them, as he had done, some of the features of modern botanical enterprise, he had made no reference to the botanical explorations in which the drug-yielding plants had been originally found. That would be a subject teeming with interest, and one with which he had no time to deal there, but it was one which might be usefully treated on another occasion.

Mr. J. B. Stephenson, in proposing a vote of thanks to the lecturer, took occasion to speak of the late Professor Balfour, under whom he had studied, as one of the foremost botanists of the age. It was gratifying, he added, to see the speaker of that evening, following up in the footsteps of his respected father, and he trusted that this would not be the last time the Society would have him to inaugurate their winter session.

Dr. Cleghorn, late of the Indian Medical Service, and an

honorary member of the Society, seconded the motion, which was heartily accorded.

Professor Balfour, in returning thanks, said the reason why he had selected Kew as the subject of his address, was that many people were quite unaware of the work which was done in these gardens—the greatest in the world.

Mr. Hill, secretary, then stated that Mr. Alexander Kinninmont had presented to the Society a magnificent microscope (Beck's Binocular) and a microspectroscope; these would be kept in the rooms for the use of the members.

The Chairman, spoke of the kindness of Mr. Kinninmont. He had rendered great service to the Society as a member of the executive, and he was sure they would preserve his donation as a lasting memorial of the great interest he had taken in the North British Branch.

The proceedings then terminated.

LONDON.

PROFESSOR GREEN ON THE FLOWER

The evening meeting at Bloomsbury Square, W.C., on Wednesday, was devoted to a lecture on the evolution of the flower by Mr. Green, the Society's professor of botany. Ladies were specially invited to the meeting, and, with a popular subject and a magic-lantern demonstration, it was in accordance with the fitness of things that there was a good audience. The lantern-screen occupied the south-west corner of the lecture-theatre, the President sat in front of the platform, and Mr. Green stood at the left of the horse-shoe table. Before the lecture commenced Mr. Carteighe presented "Pharmacographia" and "Science Papers" to Mr. Henry Garnett as a present from Mr. Thomas Hanbury. Then came Professor Green. He is not a big man, but is popular, cultured, fluent of tongue, and occasionally humorous. The flower, said the lecturer at the outset, has two great purposes to serve—viz., to maintain itself and to perpetuate its race. In that perpetuation he found the topic of his lecture, and, after briefly referring to the process of fertilisation of the flower in general terms, he proceeded to speak of the mechanism by which fertilisation is brought about. Cross-fertilisation, it has been proved, is better for the perpetuation of species than self-fertilisation; it happens, therefore, that when we trace the line of evolution from the simplest flower to the most highly organised, we note that all the points of development are arranged to ensure the carrying away of the pollen by visiting insects. It was along this line of development that Mr. Green travelled. First he spoke of the flowers visited by flies (insects of imperfect intelligence and consummate laziness)—the whole structure of these flowers being simple, the colour quiet and unattractive, and odour not particularly sweet. In these cross-fertilisation may not be complete, but there it is, and it grows as the flowers grow in complexity. Next come the bee-flowers—those of the pea type, sage, and orchid—in which the provision for ensuring that the pollen is carried away from one flower to another is of a highly complicated nature. The attractions to bees are great: honey is abundant, colour bright, and odour sweet. In going into these matters Professor Green had much that was interesting to say, although nothing particularly novel. The diagrams appeared to be a great attraction, and the lecturer was followed with close attention for fully an hour. On the motion of the President (Mr. Hampson seconding), Professor Green was heartily thanked for his discourse.

UNSUSPECTED INFECTION.—A physician warns his brethren in the profession that the way they use clinical thermometers must often favour the carrying of infection. The majority of practitioners wipe the instrument off with a handkerchief, towel, or even the bedclothing, and carefully place it away in a case prepared with a small amount of absorbent cotton in the bottom to prevent breaking, and, unintentionally, to preserve the germs from time to time, to be conveyed to the next unfortunate, who may be the first patient called upon. It should be washed with soap and water, and the wool in the case should be sublimated cotton, occasionally renewed.

CHEMISTS' ASSISTANTS' ASSOCIATION.

THE meeting of this Association, held on Thursday, November 5, was devoted to the reading of short papers by members. The first was on

TINCTURES OF IPECACUANHA.

By J. C. Umney.

On account of the general attention which was attracted by Mr. W. H. Symon's communication to the British Pharmaceutical Conference, on the preparation of tincture of ipecacuanha, Mr. Umney was induced to test the value of this process by experiment. Tinctures were made from a sample of root yielding 1.66 per cent. of emetine. One ounce of the root and one drachm of a 10-per-cent. solution of ammonia per pint of menstruum were employed in each case; the proportion of alcohol varied. The best results were obtained by first percolating with half the menstruum, next adding the ammonia, and completing by percolating with the remainder of the menstruum. The following samples were shown:—

| | | |
|---|-------------------------------|--|
| A | 10 per cent. alcohol (by wt.) | left 25.3 per cent. of the alkaloid in the marc. |
| B | 15 " " " " | 16.8 " " " |
| C | 20 " " " " | 16.8 " " " |
| D | 30 " " " " | 9.7 " " " |
| E | proof spirit | 5.4 " " " |
| F | rectified spirit | 4.8 " " " |

Sample F. was a clear, bright-looking preparation, that showed no sign of deposit on dilution with water. The other tinctures were more or less turbid.

Mr. Martindale said he was very much struck with Mr. Symon's paper at the time it was read. Ipecac. had always been a trouble. It was difficult to obtain a bright preparation—one that did not deposit. He thought the suggestion to use ammonia a very good one. He would, however, like to see a preparation in which the emetine would exist combined with the acids, as in the natural state. The American process of exhausting with spirit, pouring into water to precipitate resin, filtering and making up with alcohol sufficient to keep it, was a very good one. By the 1885 B.P. process ipecacuanha wine could be made to keep fairly well. From a root containing so large a proportion of pectinous matter we could hardly expect to get all the active principles in a single preparation of it.

Mr. Harrison asked how the alkaloid in the marc was estimated, and a member inquired if the tincture-deposits had been examined.

Mr. Umney, replying, said that the alkaloid of the marc was estimated by Mr. Ransom's ammonio-chloroform process. He had not examined the deposits; they would doubtless only consist of pectinous matter.

NOTE ON SEIDLITZ POWDERS.

By E. Sage.

Seidlitz powders, although now official, are not always up to the B.P. standard, as the following results show:—

The white paper (tartaric acid, B.P. quantity 38 grains).

A weighed 43.92 grs.; titrated with vol. sol. of soda gave 46 grs., impurity moisture.

B weighed 36.38 grs.; on titration 35.95 grs. impurity lead.

C " 30 " " " 23.82 " " "

D " 18 " " " 18 " " no impurity.

E " 23.54 " " " 23.97 " " impurity moisture.

F " 31.44 " " " 31.44 " " no impurity.

The blue paper (B.P. soda tartarata 120 grs., sodii bicarb. 40 grs.).

A weighed 200.62 grs.; estim. with H_2SO_4 gave 137.2 grs. $\text{NaKO}, \text{H}_2\text{O}$; 53.96 grs. NaHCO_3 .

B weighed 150.34 grs., gave 111.53 grs. $\text{NaKO}, \text{H}_2\text{O}$; 41.76 grs. NaHCO_3 .

C " 143.21 " " 33.31 " " 99.23 " " "

D " 101.39 " " no " " 95.81 " " and moisture

E " 156.51 " " 123.37 " " 39.8 grs. NaHCO_3

F " 127.34 " " 133.5 " " 45.6 " " "

Sample D was labelled "Warranted pure"; E contained lead.

The President said that tartaric acid frequently contained traces of lead, from the lead glaze on the vessels used in manufacture. Tartrated antimony was sometimes to be found in seidlitz powders.

Mr. Harrison inquired if the sodium salt were in all six cases *licarbonate* and not *carbonate*, as the presence of the latter salt would account for the moisture.

Mr. Strother suggested that the discrepancy in weight might arise from using the measure, instead of weighing each powder.

Mr. Martindale was surprised to hear those results, especially after the publication of the Addendum. It was difficult to obtain tartaric acid perfectly free from lead. Did the author of the paper test for H_2SO_4 in the moisture? If the acid were in excess, a foam of acid tartrate of potassium would form on the surface during effervescence, and give an unsightly appearance.

Mr. Stead agreed with Mr. Sage. He found that seidlitz powders were frequently not what they should be. Had Mr. Sage found iron present in his samples of acid? He (the speaker) had seen the acid papers distinctly stained, owing to the presence of a heavy metal in the acid.

Mr. Sage, in reply, said in no case was carbonate of soda present. He had not found iron. He had tested the moisture for H_2SO_4 , and found none. The formation of the foam mentioned by Mr. Martindale due to excess of acid was new to him.

PYROTECHNY.

By T. A. Ellwood, A.I.C., F.C.S.

Pyrotechny treats of the production of fires by combustion. It was discovered by the Chinese, with whom it remained a secret for centuries. Not until the thirteenth century did Europeans discover the property which certain substances possess of imparting colour to flame. The manufacture of fireworks had now become a scientific art. Its study necessitated a fair knowledge of organic or inorganic chemistry, a knowledge of metallurgy and of the fundamental laws of mechanics. In manufacturing there are three important considerations:—

Oxidation.—The agents generally employed are chlorates and nitrates, their object being to promote combustion after heat is applied.

Influencing Agents.—Those which regulate the combustion, as sand or potassium sulphate.

The Active Ingredient.—To give the colour desired.

Camphor and lycopodium are used in theatres—potassium nitrate with lamp-black for golden stars, copper filings for green, and zinc for blue, &c.

Of fireworks there are four kinds:—(1) Single—example, the squib; (2) terrestrial—placed on the ground—as mosaics and waterfalls; (3) atmospheric, as the rocket and Roman candle; and (4) aquatic.

COMPOSITION.—*Rocket*: Sulphur, 1 part; carbon (charcoal), 2 parts; nitrate of potassium, 4 parts; meal-powder (as a diluent), 1 part.

Roman Candle: Sulphur, 4 parts; carbon, 3 parts; nitrate of potassium, 8 parts.

Pin Wheel: Base—Sulphur, 5 parts; nitrate of potassium, 9 parts; meal, 15 parts. Colour as desired.

Bengal Lights (poisonous).—Realgar or orpiment, 1 part; black antimony, 5 parts; red lead, 1 part; sulphur, 3 parts; nitrate of potassium, 14 parts.

COLOURED FIRES OR STARS.—*Blue*: Chlorate of potassium, 8 parts; calomel, 4 parts; copper sulphide, 5 parts; shellac, 3 parts.

Green: Barium salt, 16 parts; chlorate of potassium, 16 parts; sulphur, 5 parts; charcoal, 1 part.

Yellow: Oxalate of sodium, 2 parts; chlorate of potassium, 4 parts, with shellac.

Mauve: Chlorate of potassium, 28 parts; calomel, 12 parts; shellac, 4 parts; strontium nitrate, 4 parts; copper sulphide, 2 parts; stearin, 1 part.

Purple: Chlorate of potassium, 16 parts; copper sulphide, 8 parts; calomel, 7 parts; sulphur, 2 parts.

Different shades are obtained by slight variation in composition.

A brief discussion followed the reading of this paper, several of the members giving amusing reminiscences of their early experiences with coloured fires.

BENZENE FORMULÆ.

By E. F. Harrison.

This short paper was especially devoted to the consideration of a new structural formula for benzene recently put forward by Vaubel. Other formulæ which have been in use were first briefly considered—viz., those of Ladenburg, Claus, Kekulé, and Loschmidt. Against the first, the "prism formula," the author reminded his hearers that Van t'Hoff has objected that if two different substituents are introduced into benzene in the ortho-position the body formed should, according to this formula, possess optical activity; such, however, is not the case. The formula of Claus, known as the "diagonal formula," was approved, but more particularly in the modified form put forward by Vaubel. Kekulé's well-known formula was objected to on the ground that six carbon atoms, alternately singly and doubly linked, do not form a ring, and that, from any one carbon atom being nearer to its neighbour on one side than on the other, two isomeric ortho-di-derivatives should be possible, whilst only one can be obtained. Loschmidt's formula, which is formed by placing six tetrahedra together, with their bases in one plane and their summits all turned in one direction, was objected to as being unsymmetrical, and chief commendation was given to that of Vaubel, which resembles the last in the bases of the tetrahedra being all in one plane, but differs in that the summits are turned alternately in opposite directions, thus giving a symmetrical structure. This formula, it was pointed out, also suggests an explanation of the fact that when di-substitution products of benzene are formed either the meta-compound only occurs, or else ortho- and para-compounds. In the meta-compounds the substituents will both be attached on the same side of the molecules, and may, therefore, be supposed to have attracted each other; while in the ortho- and para-compounds, where the substituents are on different sides of the molecule, repulsion is supposed to have led to this position. The instability of phloroglucinol in its phenolic form, in which three hydroxyls are, according to this formula, all on one side of the molecule, was adduced as giving support to the theory. The formation of an anhydride by phthalic acid, and not by either of its isomerides, was also discussed. The author next showed how the formulæ for naphthalene and anthracene can be derived from that of Vaubel for benzene, the former by placing the two benzene residues at right angles to each other, the latter by placing the two benzene nuclei in the same plane and connecting them by two carbon atoms, the tetrahedra representing which have their bases at right angles to the bases of all the others. A reference to the structure of pyridine followed, and the author concluded with an apology for the brief manner in which he was obliged to treat the subject. The paper was illustrated throughout by means of cardboard tetrahedra, which were fastened together by wires to represent the various structures dealt with.

There was no discussion on this paper.

LIVERPOOL PHARMACEUTICAL STUDENTS' SOCIETY.

THE usual fortnightly meeting of this society was held on Thursday, November 5, Mr. H. Wyatt, jun., president, in the chair. Three new members were elected.

Mr. Mitchell called attention to the B.P. process and formula for preparing Nessler's solution, which seemed to be greatly at variance with those given by other authorities.

Mr. Edward Davies, F.C.S., F.I.C., delivered a lecture on "Fats and Saponification," in the course of which he mentioned that it had now definitely been proved that margaric acid does not exist, the substance so called being a mixture. The word "ester," which has of late years been substituted for ethereal salts, was proposed as far back as 1852 by Gmelin. Foreign fats are detected in butter by the saponification process; the only foreign fat which cannot be detected by this process being coca-butter. He (Mr. Davies) expressed himself as confident that a process to detect this adulteration would be devised sooner or later. Volatile fatty acids are

detected in butter by the index of refraction. The saponification test is also used to detect mineral oils in vegetable oils. At the close of the lecture Mr. Davies gave some practical illustrations of the process of saponification and of the detonating power of nitro-glycerine.

The next meeting will be held on November 19, when papers will be read by Mr. T. S. Wokes, Ph.C., on the "Manufacture of Aerated Waters" and Mr. D. Hetherington on the "Preparation of Suppositories."

The association has just got together an excellent syllabus, as may be judged from the following items, which are to be given in the remaining months of the season:—

December 3.—"Bacterio-Therapeutics." Dr. J. R. Logan.

December 17.—Miscellaneous Notes. Messrs. Harold Wyatt, jun., Ph.C., Frank Walker, and R. H. Mitchell.

January 21.—"Notes on Recent Materia Medica." Mr. T. H. Wardleworth.

February 4.—"Hypnotism." Mr. Sydney Wilkinson.

February 18.—"Orchids." Miss E. M. Wood.

March 3.—"Some Micro-Chemical Reactions in Practical Botany." Mr. J. S. Ward, F.C.S., Ph.C.

March 17.—Paper by Mr. F. Charles Larkin, F.R.C.S.

March 31.—"Photography." Mr. T. S. Tabor.

On January 14 a supper and smoking-concert is to be held. We understand that the association, though one of the youngest in the country, is doing excellent work in Liverpool.

AMERICAN WHOLESALE DRUGGISTS IN CONFERENCE.

THE seventeenth annual meeting of the American National Wholesale Druggists' Association was held at the Galt House, Louisville, Kentucky, from October 19 to October 23. The *Oil, Paint, and Drug Reporter*, which devotes the greater part of a special number to a description of the proceedings of the conference, states that the entire Atlantic seaboard and Southern contingent, who left New York on October 17, and stopped over-night at Niagara Falls, put in an appearance early on October 19. The Galt House proprietors were hard put to accommodate all their druggist visitors, as they had on their hands, for simultaneous board and lodgment, a convention of bankers, Madame Sarah Bernhardt and her entire company, and the collection of domestic animals and ferocious beasts which the great actress is wont to lug about. Local druggists and others interested in the drug trade vied with each other to make their visitors welcome. An attention which seems to have been particularly appreciated by the *Oil, Paint, and Drug* man, was that of a local firm of distillers who sent to the room of each member of the convention a bottle of ten-year-old whisky, with their compliments, and, further, kept "open house in one of the hotel parlours." Others sent samples of chewing-gum, cigars, and so forth, and each of the members of the convention was further presented, by way of keepsake, with a silver court-plaster box, shaped like a miniature envelope. The druggists, at the close of their meeting, elected as their new president, Mr. William Alex. Robinson, vice-president of the Robinson-Pettet Company, wholesale drug merchants, of Louisville. The present gathering was presided over by Mr. Stewart, whose presidential address commenced with the pleasant announcement that the National Wholesale Druggists' Association had never met under more favourable circumstances. According to Secretary Merriam's report, the membership of the association at the present time is 336, of which 221 are active members. The income of the association last year was \$6,175, its expenditure \$4,957, leaving a balance in hand of \$1,218. At the succeeding meeting the first serious business brought forward was the "cutting rates" question, which was introduced by a Mr. Alexander, who read resolutions adopted by various commercial and pharmaceutical organisations promising to support any practicable plan that could be devised for the prevention of cutting. Such a plan had since been formed by the American Pharmaceutical Association, and would now be submitted to the wholesale druggists for adoption. It was referred to a committee, who reported in the main in its favour, and at a subsequent sitting of the wholesale association the scheme was adopted without serious opposition. It runs thus:—

"We recommend that proprietary articles be sold here after upon the following conditions, viz.:—

"Condition 1.—Manufacturers and owners of proprietary preparations on the contract plan agree to sell their products only to druggists, wholesale dealers in proprietary medicines, and established agencies.

"Condition 2.—Wholesale druggists or established agencies are not to supply any dealer on the cut-off list excepting at full retail prices. Further, wholesale druggists agree not to substitute when any order is presented for an article on the cut-rate plan.

"Condition 3.—Retail dealers to agree to sell all contract goods at full retail prices, including all contract and rebate articles; that they will not violate the conditions of said agreement, and further agree not to substitute another article for any article requested if such article is on the contract or rebate plan, nor deliver such goods to any dealer on the cut-off list, excepting at full retail prices; and it is hereby provided that the names of all druggists who fail to comply with these conditions be placed upon the cut-off list upon information to be furnished the proprietor by some regular retail association.

"Condition 4.—Under no consideration shall any manufacturer, wholesale druggist, or retail dealer, or other dealer, directly or by collusion, supply any proprietary preparation on the contract plan to dealers on the cut-off list, excepting at full retail prices.

"Condition 5.—Manufacturers, wholesale druggists, or wholesale dealers in proprietary goods, and retail dealers, shall refuse to sell commission merchants, brokers, expressmen, or agents any article on the contract plan, unless such sales are for export or for purchasers who are removed from domestic competition.

"Condition 6.—Manufacturers and wholesale druggists, or distributors of articles on the contract plan, to agree not to sell such articles to any retailer of said articles, excepting at full retail prices, who will not agree to sell such articles at full retail prices.

"Condition 7.—Manufacturers of proprietary articles on the contract plan to make their contracts in such a manner as not to materially increase the purchase in price to the retailer in quantities of one-quarter of a dozen or over.

"Condition 8.—Any wholesale druggist, retail dealer, or other dealer, violating this contract shall be placed on the cut-off list as a penalty for such violation."

A series of supplementary resolutions to this scheme, urging the retailers to combine for the purpose of preventing any backsliding in the matter of cutting, and assuring them of the support of the wholesale association, was also carried.

The committee on place of meeting reported in favour of Montreal, Canada, as the meeting-place for 1892. Two Canadian members of the association were present, and had extended to the committee an invitation to meet in their city next year. There was also an invitation from Denver City in Colorado. After some slight protests from members who wanted to meet only on American soil, the choice fell upon Montreal.

Mr. Knox, one of the Canadian members of the association, then made a speech about the advantages which would accrue to both nations by amalgamation. Here is a bit of it:—"About thirty years ago there were two armies, one a great one, the other a small one, marching along together. Between those two great armies, one of which had the stars and stripes, the other the Union Jack, there was a high wall. They wanted to get at each other, but better counsel prevailed. Finally a stone was taken down, and then another, and another, and the wall is getting lower, and is pretty low to-day. Now this convention can remove a stone or two and pretty soon the wall will get away altogether, and you will say, "We will annex Canada." I tell you frankly, gentlemen, that the Canadians would prefer to annex you, and it would be a selfish thing—would it not,—for the great to gobble up the lesser? I think we might just tack you on."

Ladies are to be expressly invited to the dinner at the Montreal meeting. The annual dinner has hitherto been attended by gentlemen only.

LILACIN is the popular name of terpineol which exists in various essential oils, and possesses the odour of lilac in a pronounced degree.

BANKRUPTCY REPORTS.

Re JOHN EDWARDS, Conway and Penmaenmaur, Chemist, &c.

THE public examination of this debtor, who traded as J. Edwards & Co., was held at Bangor on November 5, before Mr. Registrar Glynne Jones. In reply to the Assistant Official Receiver, the bankrupt stated that he commenced business as a chemist and grocer in 1861, without capital. About ten years ago he added the business of a wine and spirit merchant. He had two shops at Penmaenmaur and one at Conway. About eight years ago he commenced to buy public-houses and employ persons to manage them. He had done a business of 1,000*l.* or 1,200*l.* with Messrs. Worthington, on which he reckoned he made a profit of about 20 per cent. His present indebtedness to them was over 500*l.* He had not during the past three years prepared a balance-sheet nor taken any steps to ascertain his financial position. Up to 1878 he acted as agent for Messrs. Gilbey, but in that year he relinquished the agency. It was not taken from him. His wife had some property of her own, which she derived from her father. She purchased a small hotel at Penmaenmaur for 150*l.* with her own money. He was married in 1878, and there was no settlement. He had been requested by the Official Receiver to prepare a cash account and profit-and-loss account, but he could not comply, as he had kept no books of accounts. He was joint trustee with another gentleman under the will of Mrs. M. E. Jones, but the trust fund, 4,000*l.*, was invested on mortgage, and was in no way mixed up with his own business transactions. The examination was adjourned till December 3, the bankrupt in the meantime to furnish a cash account for the last two years.

The following are creditors in this estate:—

| | £ | s. | d. |
|--|-----|----|----|
| Allen & Hanburys, London | 50 | 0 | 0 |
| Ayrton & Saunders, Liverpool | 89 | 10 | 0 |
| Bowen & McKeehuie, London | 25 | 2 | 1 |
| Brockland & Mellor, Liverpool | 24 | 2 | 0 |
| Brown, J., & Co., London | 13 | 0 | 0 |
| Burgoyne, Burbridges & Co., London | 46 | 3 | 4 |
| Christie & Co., London | 23 | 15 | 10 |
| Clay, Dod & Co., Liverpool | 40 | 0 | 0 |
| Corporation of Conway, Conway | 22 | 0 | 0 |
| Ellis, R., & Son, Ruthin | 22 | 0 | 0 |
| Evans, Jane, Penmaenmaur | 70 | 1 | 0 |
| Evans, Sons & Co., Liverpool | 100 | 0 | 0 |
| Foulkes, T., Conway | 27 | 0 | 0 |
| Hayward, John, Liverpool | 10 | 0 | 0 |
| Jones, D., & Co., Liverpool | 33 | 5 | 0 |
| Jones, E., & Sons, Conway | 12 | 12 | 0 |
| Jones & Porter, Conway | 13 | 17 | 4 |
| Kinloch & Co. (Limited), London | 22 | 0 | 0 |
| Lamb & Watt, Liverpool | 10 | 18 | 0 |
| McConnell, T. & J. (Limited), Belfast | 30 | 0 | 0 |
| McEachen & Co., Liverpool | 30 | 0 | 0 |
| Morgan, J., & Co., Liverpool | 10 | 1 | 0 |
| Morrison & Son, Leith | 41 | 15 | 0 |
| Muratt, B., & Sons, Manchester | 10 | 11 | 5 |
| Myers, H., & Co., London | 13 | 17 | 3 |
| Pritchard, J., Bangor | 17 | 0 | 0 |
| Roberts Bros., Liverpool | 22 | 17 | 6 |
| Roberts & Jones, Conway | 23 | 0 | 0 |
| Shore, J., & Son, Liverpool | 15 | 0 | 0 |
| Silberton & Howard, London | 19 | 11 | 7 |
| Solomon, B., Mayence-on-Rhine | 10 | 14 | 4 |
| Sumner & Co., Liverpool | 24 | 8 | 0 |
| Summerfield & Co. (Limited), Liverpool | 35 | 6 | 9 |
| Williams, W., & Co., Chester | 12 | 1 | 10 |
| Williams, W., & Co., Conway | 10 | 0 | 0 |
| Williams, W., & Co., Liverpool | 20 | 19 | 0 |
| Worthington & Co. (Limited), Burton | 500 | 0 | 0 |
| Wyles & Co. (Limited), Coventry | 32 | 14 | 0 |
| Young, E., & Co. (Limited), Liverpool | 123 | 0 | 0 |

Re ALFRED ANTHONY NESBIT, Camberwell New Road, S.E., Analytical Chemist.

THIS bankrupt attended before Mr. Registrar Broughton at the London Bankruptcy Court, November 6, for his public

examination. The accounts filed show gross liabilities 4,898*l.* 0*s.* 10*d.*, of which 3,030*l.* 0*s.* 10*d.* are unsecured, and assets nil. In reply to Mr. E. L. Hough, Official Receiver, the bankrupt stated that up to March, 1885, he was in constant practice as an analytical chemist, but since that time he had only practised occasionally, and had been assisted with loans and gifts from friends and relations. His income during the past three years amounted to 290*l.*, and that sum also represented his expenditure, his pecuniary position having remained about the same during the whole period. Mrs. Nesbit had a separate income and was a large creditor under the proceedings. Witness had expended about 5,000*l.* in developing a patent to prevent forgery in cheques. In 1887 he was offered 6,000*l.* for the patent, but refused it, and now it was of very uncertain value—in fact, he only returned it in the accounts at the amount of the charges given on the patent. It was true that the patent had been in existence for eleven years, and no use had yet been made of it.

Mr. Smiles, on behalf of a creditor, asked a few questions respecting Mrs. Nesbit's income and the debtor's interest therein, and the examination was ordered to be concluded.

Re THOMAS BISHOP, 72 The Brook, Chatham, late Ruby's Court, The Brook, Chatham, Kent, Mineral-water Manufacturer.

UNDER this recent failure the following are scheduled as creditors:—

| | £ | s. | d. |
|---------------------------------------|-----|----|----|
| Bush, W. J., & Co. | 19 | 0 | 0 |
| Bratby & Hinchliffe, Manchester | 150 | 0 | 0 |
| Barnett & Foster, London | 24 | 0 | 0 |
| Carter & Wright, Bristol | 12 | 0 | 5 |
| Foster, W., Rochester | 25 | 0 | 0 |
| Hobbs & Son, Maidstone | 10 | 0 | 0 |
| Holder & Co., London | 10 | 0 | 0 |
| Lloyd & Co., London | 10 | 0 | 0 |
| Lowe & Co., Huddersfield | 12 | 0 | 0 |
| Robinson & Co., London | 10 | 0 | 0 |

Re JOHN EDWARD WILSON, 50 Elgin Crescent, Notting Hill, trading as EDWARD WILSON, Chemist and Druggist.

THIS bankrupt attended at the London Bankruptcy Court, on Tuesday, before Mr. Registrar Linklater, for public examination. He filed his own petition last August, returning his debts at 738*l.* 10*s.* 2*d.*, and his assets at 55*l.* 1*s.* 10*d.*

In reply to Mr. R. H. Wildy, Official Registrar, the bankrupt stated that he commenced business at the above address in October, 1886, with a capital of 130*l.* He had paid a rental of 154*l.* 15*s.* a-year, to which fact he principally attributed his failure. At the date of the receiving order, the bottles, &c., at the shop were the property of the landlord, who had acquired them, and then allowed witness to retain them upon a hiring agreement. The usual books and accounts had been kept, but he admitted they were imperfect. The cash-book did not contain a record of the moneys he had borrowed, for the purposes of the business, nor of his personal drawings. A creditors' ledger had only been kept for a short time. He had never made balance-sheets, nor taken stock, and, in fact, the books never showed his financial position. When he took the place, he anticipated being able to let off the upper part of the house; but he was unable to do that, and the profits were not sufficient to justify the expenses. The bankrupt admitted that he had never been solvent during his business career. From the commencement he made no net profit; but he continued to trade in the expectation of eventually making the business a success. He thought he was justified in so doing, because the trade was gradually improving, and had, in fact, increased to the extent of 33 per cent. during the past three years. Witness gave a bill of sale over his household furniture, two years ago, to secure an advance of 50*l.*, borrowed to build up the business. He had also borrowed 300*l.* upon his life-policy of 400*l.* The premiums had since been allowed to lapse, and, consequently, the creditor had proved under the present proceedings for the whole amount of his claim. Interest at the rate of 12 per cent. had been paid for the money up to the date of the receiving order. Pressed upon the point, the witness repeated that the whole of the

borrowed moneys had been devoted absolutely to business purposes. He had not failed before, nor had he made any previous arrangement with his creditors.

There was no opposition on the part of creditors, and the examination was ordered to be concluded.

Re HENRY LAMPLOUGH, Holborn Hill, Chemist.

UPON the petition of a creditor, a receiving order has been made in the Meath County Court against this debtor, who was the manufacturer of the well-known "pyretic saline," the business in which, some five years ago, was taken over by a limited company. The London Court was communicated with on Tuesday last, with a view to taking possession of the property of the debtor at Holborn Hill. It transpired that the said property consisted of furniture to the value of 100*l.*; that the debtor is not at the present time connected in any way with the business, but has been allowed by the company to use the upper portion of the house.

Re THOMAS HENRY TYRRELL, 24 Wellington Street, Luton Chemist.

RECEIVING order made October 21. The statement shows gross liabilities, 965*l.* 11*s.* 3*d.*, of which 483*l.* 11*s.* 3*d.* are unsecured. There are no assets.

From the Official Receiver's observations it appears that the debtor commenced business as a chemist about twenty-seven years ago, with a capital of about 200*l.*, but, on October 16, 1890, he assigned to his son, Thomas Tyrrell, by bill of sale, the whole of his stock-in-trade, fixtures, fittings, and goodwill, the consideration being that his son paid 101*l.* 0*s.* 5*d.* on October 15, 1890, on behalf of the debtor, at his request, to the sheriff, who was in possession of the debtor's premises at that time. His son then took possession of the business, and the debtor has since been employed by him at the shop. The household furniture belonging to the debtor, was assigned by him to his wife, about two years ago, in consideration of advances made to him by her out of her private income, so that there are apparently no assets of any kind to realise. The debtor states that he has kept no books of account. The cause of insolvency, as stated by the debtor is litigation in respect of certain leasehold premises in Slayer Street, Bethnal Green, which he purchased sixteen years ago. The ground-landlords, Eaton & Reynolds, have obtained judgment against him for dilapidations, and they are the petitioning creditors. The public examination is fixed for November 24, at 11.15 A.M. The official receiver is Alfred Ewen, St. Paul's Square, Bedford.

FRANCIS JAMES WICKS POLGLASE, Tyne Vale Chemical Works, Skinnerburn Road and Brunel Street, Manufacturing Chemist, &c.

EXAMINED for the first time on November 11. Filed statement of affairs showed liabilities 1,335*l.* 9*s.* 7*d.*, assets 83*l.* 2*s.* 1*d.* Examination adjourned for a week.

MEM. FOR ADVERTISERS.—The London correspondent of the *Birmingham Gazette* is responsible for the following:—A firm that manufactures a condiment of world-wide fame had been in the habit of advertising to the extent of about 5,000*l.* a year through one of the most eminent advertising agencies in London. They thought they could dispense with advertising seeing that their speciality was on every table. Accordingly all orders and contracts were stopped. Sales began to fall off, and the decrease continued until the firm went back to their agents and announced that they intended to advertise again. But the decline had become so serious that, in order to recover lost ground, they have now to spend 10,000*l.* a year where formerly they spent 5,000*l.* It is well known that wholesale houses reduce their orders when they find that the article they have been dealing in is no longer advertised. They do this to save themselves from future loss, because their experience teaches them that the public demand declines as advertising declines.

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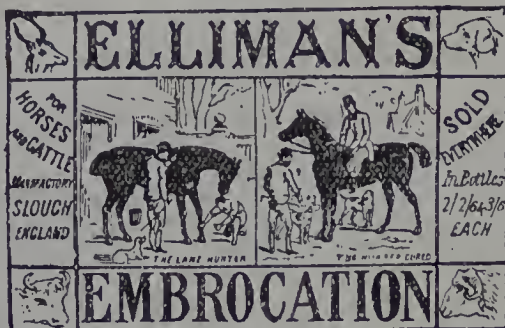


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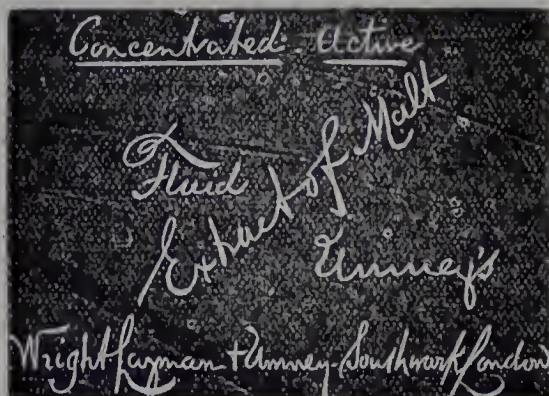
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BETHNAL GREEN, LONDON.

SHOW CARDS, 24×17 or 17×12,
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Sole Agents for the United Kingdom, Furst Brothers, 17 Philpot Lane London, E.C.
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| PURE | ✱ | 18/ | 1 cwt. carriage paid; ✱ |
| CRUSHED LINSEED | | | 7, 14 & 28 lbs. free on rail Lond |
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To railway stations in England, or half to stations in Scotland, Ireland, and Wales, on parcels of a total weight of not less than 1 cwt. Samples free.

ALL BAGS INCLUDED.

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AS SUPPLIED TO THE QUEEN.

In Bottles and Patent Syphons.

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Annual Income, £702,000.
Funds in Hand, £807,000.

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NOTICE.

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Concentrated Liquors*

"WE CAN CONSCIENTIOUSLY RECOMMEND THEM"—The Practitioner.

POISONOUS PATENT MEDICINES.

We have often quoted the confident opinions of lawyers to the effect that under the Pharmacy Act, 1868, registered chemists and druggists, and they only, are legally

entitled to sell such proprietary medicines as by their composition come within the statutory definition of poisons. The 16th section of the Act expressly exempts the making and dealing in patent medicines from the operation of all the preceding sections. That is to say, the manufacture and sale of patent medicines, even though they contain poisons, are not restricted. But Mr. Alpe, of Somerset House, Mr. Braxton Hicks, the coroner, and Mr. Gill, representing the Public Prosecutor, have all asserted their professional opinions that this exemption can apply only to medicines actually patented, and not to those which are described as patent medicines in loose phraseology.

Clearly it is distinctly a matter of trade interest and concern to get this opinion established and enforced if possible; and it is generally known that the only body which can prosecute unqualified persons for illegally selling poisons or poisonous preparations is the Pharmaceutical Society. The Council of that Society has, we think, shown a discreet caution in not pressing the claims of the trade too eagerly. It has been several times intimated that an impulse might be looked for from without. This impulse, it appears, is now at hand.

In last week's *British Medical Journal* there is a report of a meeting of the Parliamentary Bills Committee of the British Medical Association, held on October 20, at which the chairman of the committee (Mr. Ernest Hart) made a speech and submitted a resolution on the subject of patent medicines and the sale of poisons. Mr. Hart reminded the committee of the prosecution at the Mansion House for the sale of a patent medicine containing poison but not labelled "poison," when a nominal penalty was imposed. At that time, he said, it was distinctly announced as the intention of the Government that if any instance of a proprietary medicine containing poison, and not so labelled, were brought to the notice of the authorities, proceedings would be taken against the person selling. No further steps had been taken by the Government or by anyone else in the matter. The only persons, Mr. Hart added, who could take steps were the Pharmaceutical Society and the Public Prosecutor. In this statement he is not quite correct. Under the 15th section of the Act the Pharmaceutical Society only can take action; under the 17th (which was the section under which the Mansion House case was prosecuted), anyone can lay an information. Mr. Hart intimated that he appreciated the reluctance of the Pharmaceutical Society to act unless they were set in motion, but he had officially communicated with the President of the Pharmaceutical Society, and ascertained from him that if the committee asked that Society to put the law in motion, they would do so; and in the same way he had every reason to believe that the Public Prosecutor would, if they brought the matter under his notice, institute a series of prosecutions.

Dr. B. H. Paul had prepared, at the request of Mr. Hart, a series of 13 analyses of certain substances commonly sold as patent medicines, in which he had found statutory poisons as follows:—

| | | | | | | | |
|-----|----|-----------|--------------|--------|------------|-----|---------|
| No. | 1 | contained | 2.58 | grains | morphine | per | fl. oz. |
| " | 2 | " | 0.20 | " | " | " | " |
| " | 3 | " | 0.45 | " | " | " | " |
| " | 4 | " | 2.50 | " | " | " | " |
| " | 5 | " | 3.11 | " | " | " | " |
| " | 6 | " | 0.67 | " | " | " | " |
| " | 7 | " | 0.15 | " | " | " | " |
| " | 8 | " | prussic acid | " | " | " | " |
| " | 9 | " | 0.03 | grains | " | " | " |
| " | 10 | " | 0.14 | " | " | " | " |
| " | 11 | " | 0.05 | " | strychnine | " | " |
| " | 12 | " | 0.10 | " | " | " | " |
| " | 13 | " | 1.6 | " | aconitine | " | " |

Dr. Paul stated that only four of the above (Nos. 2, 4,

5 and 13) were sold with poison-labels. Nos. 1 and 2 contained prussic acid as well as morphia. Nos. 4 and 5 were practically identical with tincture of opium, B.P. but sold under another name and with the medicine stamp.

The following resolution was unanimously agreed to by the Parliamentary Bills Committee of the British Medical Association:—

That the chairman be authorised to communicate with the Solicitor to the Treasury and to call his attention to the fact that whereas on March 21, 1890, he prosecuted a chemist and druggist for having neglected to place a poison-label on a proprietary medicine containing a poison within the meaning of the Pharmacy Act, 1858, and obtained a conviction; that the evidence laid before the committee, and of which a copy is forwarded to the Solicitor to the Treasury, shows that a considerable number of preparations sold as proprietary medicines, sometimes improperly called patent medicines, contain a very large proportion of statutory poisons, and to request the Treasury to undertake prosecutions in such cases with a view to putting a stop to this practice, which is one dangerous to the public safety. And, further, that the chairman be authorised to take such steps as may seem most advisable to induce the Pharmaceutical Society to put in force the powers entrusted to it by Act of Parliament with a view of preventing, if possible, the sale of proprietary medicines containing poison by persons not otherwise authorised for the sale of poisons.

The strict limitation of the sale of patent medicines containing poisons to chemists and druggists is a policy which will commend itself to the judgment of most intelligent persons; but it is obvious that if this is done two things will be incumbent on chemists. First, they should carefully fulfil the law's requirements themselves in reference to labelling, &c.; and, secondly, they should not take advantage of their legal position to the inconvenience of the public. In other words, they should be always ready to supply such poisonous patent medicines as there may be a just demand for.

THE PHARMACEUTICAL SOCIETY OF IRELAND AND ITS OFFICIAL ORGAN.

IT will be seen from the report which we publish on another page that THE CHEMIST AND DRUGGIST has been appointed by the Council of the Pharmaceutical Society of Ireland to be the official organ of that body from January 1, 1892. We cannot lay claim to any particular qualification for "official organism," and Mr. Wells was good enough to explain delicately to his colleagues that the position and title bestowed upon us did not necessarily involve the duty of swearing by everything the Council should say or do in the future. It need hardly be said that we could never afford to throw in our independence when we make terms with any society for the supply of our journal, and we may add that it would be a poor bargain for the Society as well as for ourselves if we did so. A journalist is just as likely to be wrong in his judgments as any other individual whose opportunities of acquiring information are similar to his. What may be fairly expected of him is that he shall at least take trouble to get a knowledge of the facts and circumstances he proposes to discuss, and that he shall, by a fair publication of the bases of his opinions, give to others the opportunity of checking, and, perhaps, of opposing, his conclusions. Is it not obvious that under conditions such as these, honest—even if sometimes mistaken—criticism is of more use all round than the mere mechanical endorsement of bureaucratic policy, which is what is generally associated with official organism? It seems desirable to say this much, without enlarging upon the subject, in vindication of our past and in anticipation of our future relations with the Pharmaceutical Society of Ireland. Let it be remembered, however, that that Society has just entered on the new career

planned for it by its second statute, and that amid some surface differences there is at this time a genuine undercurrent of desire that all parties shall heartily work together for the commonwealth.

Irish pharmacy is, in one sense, a creation of this generation, and its evolution and history are subjects of no little interest. The separation of a class of pharmacutists distinct from the medical profession in Ireland dates from 1875. Before that date qualified medical men only were entitled to practise pharmacy in its fullest extent. The unreasonable condition of compelling a man who wanted to be a pharmacist to qualify fully as a medical practitioner had its natural effect in causing chemists and druggists to press very closely on the fence which protected the apothecaries. Since 1875 the progress of Irish pharmacy, though it has been beset with many difficulties, has been rapid and substantial. There are now, we are told, in Ireland nearly three hundred establishments belonging to pharmacutical chemists, and it is notorious that the average extent of pharmaceutical businesses is greater in Ireland than in any other part of the United Kingdom. The evidence which our report of the last Council meeting gives of the energy with which the rights of pharmaceutical chemists are being pressed promises that before long the Irish licentiates will have practically the whole of the dispensing of the country in their hands.

ADULTERATION OF FOOD AND DRUGS.

THE Local Government Board have just issued their report for 1890. It is contained in a bulky volume of over 900 pages, and deals with paupers, county councils, public health, and all the miscellaneous interests the supervision of which is committed to this department. One of the Acts which the Board have to watch is that which aims to protect the public from adulterated food and drugs. In their record of proceedings under the Sale of Food and Drugs Act, Mr. Ritchie and his staff appear to still retain their sublime faith in the statistics, and especially in the decimal fractions, which in their report indicate the progress of commercial morality under their sway. According to their tables, tradesmen were three-tenths of 1 per cent. honester in 1890 than in 1889. That is, the percentage of adulterated articles in the gross total of those examined was 11·5 in 1889, and 11·2 in 1890. On this the Board complacently remark that

The diminution which has been in progress since the passing of the Act of 1875 seems to show pretty conclusively that the machinery established by that Act is, on the whole, working well, despite the neglect of local authorities to set it in motion in particular districts. In the first five years for which the analysts' returns were tabulated—viz., 1877-81—the percentage of adulterated samples was 16·2; in the five years 1882-86 it was 13·9; and in the four years 1887-90 it was 11·5.

Seeing that under the Board's system of calculation an incompetent but energetic analyst can at any time make a hash of the figures, it is not clear how it can be asserted that they show anything at all. For instance, it appears from the tables that bread, which recorded 2·2 per cent. of adulteration in 1889, improved to 0·7 per cent. in 1890; mustard improved from 9·6 to 0·1 per cent., and confectionery and jam from 4·6 to perfection (0·0): while, on the other hand, drugs figure among the articles in which deterioration is recorded, the statistics showing 12·1 per cent. of adulteration in 1889, and 14·5 per cent. in 1890. Does anybody suppose that these figures are exact or even approximate?

They are got together by the merest chance, and consequently the 11·5 and the 11·2 mean nothing at all.

We have often before exposed the absurdity of the Board's assumptions from these figures. They are merely the record of examinations made by public analysts so far as these are reported. One analyst may have tested five samples, another five hundred; one may devote himself to milk, another to gin, and a third to pickles. A number of the reports may have been found fallacious, and though the Board have received information of 1,952 prosecutions, nobody seems to know in how many cases convictions resulted. But in all instances the analyst's report counts in the general average. What reliance can be placed on figures got together in this hap-hazard fashion?

The Board's complaint of the inefficient administration of the Act in many parts of the country deserves attention. The Board justly point out that in those boroughs and counties where it is not enforced not only do the public lose the benefit of the protection which the law intended for them, but honest traders are unfairly handicapped in the contest with their more unscrupulous competitors. The Act is practically a dead letter in about a quarter of England and Wales. The County Councils of Monmouth, Oxford, Hereford, Pembroke, Cambridge, Montgomery, Radnor, and the Isle of Ely, and the borough Councils of Northampton, Devonport, Tynemouth, Carlisle, Southport, Scarborough, Dover, and other smaller places have ignored it entirely; while in the counties of Norfolk, Cornwall, Berkshire, Shropshire, Wiltshire, Lincolnshire, and Carmarthen, and in the boroughs of Preston, Norwich, Wolverhampton, Bolton, Macclesfield, Ipswich, and Ashton-under-Lyne the administration of the statute has been so apathetic as to be of scarcely any value.

Not much new in the art of adulteration is revealed in this report. Milk, as usual, occupies the most prominent position, and the method of Manchester and Salford, of taking samples at the railway-stations before the cans are delivered to the retailers, is commended. London still retains an unsatisfactory pre-eminence in respect of adulterated milk. The sale of false butter has been checked by the Margarine Act, but it is noted that the use of "boric and boracic acids," preservatives of butter, and other substances, seems to be finding increased favour among dealers. The question whether such an addition comes within the exemption allowed as being not injurious to health, and as "required for the production or preparation of the article of commerce in a state fit for carriage or consumption," is left an open one. That large quantities of the preservative may be injurious to health is certain, but it is questionable whether there is any danger in usual instances. Coffee continues to be adulterated with chicory, and a large number of samples of sugar have been found to be tinted with an amber aniline dye to bring up the white crystals of beet-sugar to the shade of the more valuable Demarara. Formerly giuger-fibre, which had been partially exhausted in ginger-beer factories, was ground up to adulterate pepper with, but this practice is reported to be dying out; and the adulteration of lard with cotton-seed oil, or with water, is also believed to be less frequent. Wine-buyers still get various concoctions, though what they expect when they purchase "Scotch port" is not clear. In beer only salt was reported as an adulterant, though the reporter questions whether the quantity detected, which in no case exceeded 70 grains per gallon, is sufficient to justify the assumption of an addition. Water is practically the only adulterant of spirits met with, but cocoa hardly gets a fair chance of showing its nutritive qualities in the midst of the sugar, starch, and arrowroot so frequently associated with it. We must quote the Board'

marks on drugs in full, though they are rather lengthy. My report:—

The number of samples of drugs examined, though greater than in any previous year, was, in our opinion, scarcely commensurate with the importance to the community of securing the genuineness of medicines. In Birmingham, however, this question was taken up on a considerable scale, and it was there that about a third of the whole number of samples were taken. Saffron was found to be mixed with dyed glandula; syrup of senna had its strength lowered by water; sal volatile had only two-thirds of its proper potency; syrup of poppies was largely diluted; glycerine contained a trace of arsenic; borax had an admixture of carbonate of soda; paregoric was in various respects defective; and several other drugs were either diluted with water or deficient in some important property. In Sheffield, too, a good many samples of drugs, including some dispensed on prescription, were submitted to analysis. In the county of Wiltshire the analyst reports:—

"One drug was bitartrate of potash, which should consist of tartaric acid and potash. This was adulterated with 6 per cent. of sulphate of potash, a substance which is ten times cheaper than bitartrate of potash. This adulteration allows a very handsome profit. The second drug was labelled citrate of magnesia, but it was a mixture of sulphate of magnesia, tartaric acid, sugar, and bicarb. soda. It did not contain any citrate of magnesia."

We have received information of 43 cases in which proceedings were taken in respect of the adulteration of drugs. The penalties amounted to 43*l.*, including four of 5*l.* each.

Vague statements like the above, unchecked by any competent authority, obviously cannot be replied to. But they are admirably adapted for newspaper quotation and comment, which is probably their purpose. It is not quite satisfactory, however, that a Government department should persist in exciting prejudice against a particular class on such flimsy bases of evidence as they seem to called.

COMMENTARY.

MR. HARRISON AND THE PHARMACEUTICAL COUNCIL.—Mr. John Harrison, of Sunderland, again appeared at the Pharmaceutical Council meeting last week. In July last we had occasion to call attention to the circumstance that Mr. Harrison, as a chemist at Sunderland, was conducting a number of businesses with unqualified managers, while as a councillor at Bloomsbury he was consenting to the prosecution of unqualified managers elsewhere. This is a proceeding which, while it is not a direct infringement of the Act, is so obviously unfair to defendants prosecuted, and so calculated to bring discredit on the Pharmaceutical Council and Society, as to call for some action on the part of Mr. Harrison's colleagues.

LIMITED WINE-LICENCES.—There surely ought to be a simple examination in law for magistrates before they are empowered to sit on the bench and make laws of their own. Their worships at Wrexham seem to have granted a certificate to a Mr. Gibbons to sell Liebig's and Coca Wine and these &c. They refused a general wine-licence. Of course, they had no power to make this condition, and, moreover, they had no power to refuse an off wine-licence at all to an applicant of a good character and suitable premises. Necessarily the Excise officer refused to grant the licence certified for, the sufficient reason that no such licence exists. Mr. Gibbons went back to the magistrates to get their certificate renewed. It was legal, but was peremptorily told that he was too late to have their blunder rectified. The report does not indicate whether the bench offered any apology for the trouble they had given the applicant and the injury they had done him.

PHARMACISTS' FEES.—The *Globe* seems to have a peculiarly bitter animus against chemists and druggists. By the *Globe* we mean the pink evening newspaper published in the Strand, not the worthy old planet, the mother of us all, nor her children in a collective sense. Whenever any public event occurs affecting pharmacists, out comes our contemporary with a more or less spiteful paragraph about chemists and their profits. A few days ago he had something to say about Sir James Sawyer's address last week at Birmingham. "The patient," said Sir James Sawyer, "does not mind paying a big fee to the physician for his prescription, but often grudges a small fee to the pharmacist." Not so, says our frugal friend—what we object to is the pharmacist's big fee.

No one wishes to purchase, at however small a cost, drugs which are not of the best; that goes without saying. But that is not the point. The point is, that a certain quality of drug—whatever it may be—costs more at the pharmacist's than it does at the store. Something extra, it seems, has to be paid for the superior "surroundings" of a pharmacy—for the prestige attaching to the business of a chemist. There are fashionable chemists whose profits are probably at the rate of 100 per cent., if not of more. Moreover, there are doctors and physicians who play into the hands of the chemists whom they patronise. There are, of course, honest pharmacists; but speaking generally, chemists' prices are, apparently, purely arbitrary.

True enough; [so arbitrary, indeed, that chemists themselves have precious little voice in fixing them. But what about the 100 per cent. when we find our globular friend charging a penny for a collection of news which we can get quite as fully for a halfpenny? Is it the "surroundings"? "Chemist" replies in Monday's *Globe* to the writer's remarks. He uses the familiar arguments about the cost of a pharmacist's education and the smallness of his takings. "I am just now contemplating," he says, going into business on my own account; and, with this purpose in view, have investigated most of the businesses in or near London now in the market. Very few chemists take as much as 1,000*l.* gross (quite 50 per cent. do not take 500*l.*) in the year. Manifestly, the vendor of a business would be expected to estimate his proportion of profit as generously as possible, and yet in not one single instance that I can call to mind has he ventured to place it above 25 per cent." As a caution against store-dispensing, "Chemist" tells the *Globe* that "a young man was discharged from one of the largest and most respectable of these institutions because he could not dispense more than 45 prescriptions in a day." The inference is, of course, that cheap dispensing is likely to be risky.

DEED OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1867. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Aspinall, John, 71A Irlam Street, Newton Heath, and 722 Rochdale Road, Manchester, mineral-water manufacturer, and ale and porter bottler. Trustee, Thomas Sutton, 2 Cooper Street, Manchester, chartered accountant. Dated November 3, 1891; filed November 5, 1891. Unsecured liabilities, 464*l.* 3*s.* 2*d.*; estimated net assets, 534*l.* 6*s.* 8*d.* The following are scheduled as creditors:—

| | £ | s. | d. |
|--|-----|----|----|
| Allsop & Sons, Manchester | 15 | 0 | 0 |
| Bass & Co., Manchester | 34 | 13 | 0 |
| Clayton & Jowett, Liverpool | 10 | 9 | 7 |
| Lees, J. & W., Denton | 17 | 11 | 0 |
| Nuttall & Co., St. Helens | 39 | 8 | 6 |
| Sherriff, Alice, Manchester | 49 | 14 | 8 |
| Smith, E., London | 17 | 2 | 6 |
| Tatton, Ann, Manchester | 100 | 0 | 0 |
| Wilson, H. C., & Co., Newton Heath | 46 | 16 | 0 |
| Wheatley, J., & Sons, Sheffield | 13 | 15 | 8 |
| Waddell & Hope, Manchester | 46 | 10 | 0 |



Legal Reports.

ADVERTISING A MEDICINE.

IN the Westminster County Court
on November 6, before Judge Bayley,
The London Printing and Publishing Co.

(Limited), as proprietors of *Myra's Journal*, sought to recover from the proprietors of Frazer's Sulphur Tablets for advertisements, inserted in the journal named, or, in the alternative, for damages for breach of contract. Mr. C. C. Scott, for the plaintiffs, said the defendants arranged with them to insert thirteen advertisements in *Myra's Journal*, at a charge of 8*l.* 15*s.* per month. After seven insertions had been made defendants declined to pay at the time arranged, and countermanded the order; but, in view of certain law cases, the plaintiffs thought their best course was to complete the order. This they did, and they now claimed for the six insertions which had not been paid for. Evidence was called to prove these facts, and the canvasser who obtained the advertisement said he saw the defendants after the order to stop was received and told them he would release them from performing the contract if he would agree to pay 12*l.* for each advertisement which had appeared. In cross-examination this witness said, although the paper belonged to the London Printing and Publishing Company, who were the registered proprietors, the business of the paper was carried on under the name of Myra & Son. When the advertisement was given, Mr. Sharpe, one of the defendants, did not ask what the circulation was. It was not true to say that he replied 50,000 a month, and that the Christmas number was about 80,000 in 1889. The average monthly circulation, he should think, was about 30,000 in 1889. He was not surprised that the plaintiffs, in answer to interrogatories, said the average monthly circulation was 26,000. They were taking a great deal more from some firms at this time than 8*l.* 15*s.* for a half-page advertisement. In one case a whole page in the Christmas number was 25*l.* The publisher of the paper said in December, 1889, the circulation was 50,000 and the average circulation between December, 1889 and 1890, was 26,000. The defence was that the advertisement was obtained upon the statement that the circulation was 50,000, and it was now proved that it was not so much. The orders consequent on this advertisement were very few. In December only nineteen were received, and the highest number during the seven months the advertisement ran was seventy-five. His Honour observed that a written order was given and there was no mention of the number of copies in that order. Mr. Sharpe said he was carrying on business under the name of Frazer & Co., and for about fourteen years had been in the medicine trade, and had had great experience in advertising. The canvasser, when the order was given, said the circulation was 50,000, but he was not sure whether it was per month or not. They would be able to do 70,000 or 80,000 of the Christmas number if they could get the plates over in time. The returns from the advertisements were not good, and gradually fell off until the order was countermanded. The falling-off continued until the end of the time the advertisements appeared. His Honour, in giving judgment, thought the question of circulation was an afterthought. It was a dangerous practice to give an order of this kind and leave out the important fact of circulation. He came to the conclusion that, even if 50,000 was mentioned as the circulation, it was proved that that number was sold at Christmas. He gave judgment for the plaintiffs for 52*l.* 10*s.*, with costs.

THE GLASGOW TINNED PEAS CASE.

THIS case of appeal, between Peter Fyfe, inspector of nuisances for the City of Glasgow, and Malcolm Campbell, fruit merchant, 18 Gordon Street, Glasgow, came before the Lord Justice Clerk and Lords Rutherford Clark and Trayner in the High Court of Justiciary at Edinburgh on November 6. The complaint was brought originally before Sheriff Birnie, at Glasgow, by the inspector of nuisances, against Mr. Campbell, of that city, who did, on June 26, 1891, sell to Robert Inglis, a sanitary inspector, one tin containing 1 lb. of preserved green peas, the same being coloured with copper or sulphate of copper to the extent of .005 per cent. copper (equivalent to 1.4 grain of sulphate of copper per lb. of peas), and so rendered injurious to health, contrary to the Act 38 & 39 Vict., cap. 63, sec. 3. It was admitted or proved in the lower court that the respondent sold the tin of peas; that it contained 10 oz. of peas, and 4 oz. of water, and was coloured with 1.4 grain per lb. of sulphate of copper, the tin bearing the label, "A minute quantity of copper has been used by the manufacturer to improve the colour of the peas, but they are guaranteed not injurious. M. Campbell." The sheriff held, after evidence, that it was not proved that the peas had been rendered injurious to health, and assailed the respondent, without costs. On being asked for a question of law for the opinion of the High Court, he stated the following:—"Keeping in view that the statute has for its object the preservation of the public health, and that the evidence was nearly balanced, ought the respondent to have been assailed?" On Friday, when the appeal was called,

Mr. Ure, for the appellant (the Glasgow Sanitary Authority); said he thought it was obvious the sheriff had not stated a question of law for the consideration of this court. What he had done was merely to set forth what the witnesses had stated, but he had not set forth what he held had been proved.

Mr. Salvesen, for the defendant: Oh yes, he has.

After some discussion Mr. Ure said the question of law which they desired to raise was—Upon whom did the onus lie to prove whether these peas were injurious to health? The sheriff indicated plainly that he held the onus to lie upon the prosecution. He inferred that from the way in which he stated his finding; but the question of law was—Did the onus lie upon the man who produced this foreign ingredient, or on the prosecutor? He maintained that the sheriff's summary was not a question of law.

Lord Trayner: It is for him to say whether the balance leads the one way or the other.

Mr. Ure replied that it did not enable anyone to argue the real question, because the learned sheriff apparently thought the onus was upon the prosecution; but it did not follow that he would refuse to convict if the onus was the other way. When he said the evidence was nearly balanced he (Mr. Ure) gathered that he thought the balance tended in a certain direction.

The Lord Justice Clerk did not think that by that particular clause the amount of the onus could be stated.

Lord Rutherford Clark: The sheriff says it is not proved to him that the introduction of this ingredient rendered the peas injurious to health. What would you mean by that?

Mr. Ure quite agreed they could read that as meaning that the sheriff had thought that the weight of evidence was to the effect that the introduction of the foreign ingredients had not rendered the article injurious.

Lord Rutherford Clark: And suppose, for instance, it was proved that the peas were particularly injurious to health?

Mr. Ure: Then I should have nothing to say. (A laugh.) The sheriff said he held it was not proved that they were innocuous.

Lord Rutherford Clark: He must negative or affirm; but he says, "I hold it not proved."

Mr. Ure: That is to say, he puts it upon the prosecutor to prove they were injurious.

Lord Rutherford Clark: He says distinctly, "I cannot find it proved that they were injurious to health."

Mr. Ure said the question his client would desire to raise was whether, if the evidence were equally balanced, the sheriff ought or ought not to have convicted.

Lord Justice Clerk: Even the balancing of the evidence would not be proving.

Mr. Ure said he held that, under the Public Health Act,

secs. 24 and 8, where the evidence was equally balanced, by showing that a man introduced a foreign ingredient into an article of food, that man ought to be convicted, unless he could show it was innocuous.

Lord Justice Clerk: It is quite legal to put foreign ingredients into articles of food. Pepper is a foreign article of food; so is sago. Is every person who puts some pepper over his cabbage liable to be prosecuted unless he can prove that the pepper in a particular case was not injurious to health?

Mr. Ure: Certainly not; but where a foreign ingredient is introduced, and evidence is evenly balanced as to the injury to health, then, in that case, I would maintain the prosecutor was correct in this appeal. We are all agreed that sulphate of copper in sufficient quantity is poison.

Lord Justice Clerk: Then the charge is that he put in such a quantity as would render the article injurious to health. That is the charge you must make, and, unless you can make that charge and prove it, you have no relevant case.

Mr. Ure: I proved by the prosecutor that by the introduction of these ingredients it is injurious to health.

Lord Trayner: But the sheriff says you have not.

Lord Justice Clerk: The sheriff does not believe in your skill.

Mr. Ure: Because there is a difference of opinion as to whether or not the article is poisonous, and the doubt I hold ought to be solved in favour of the prosecutor. The sheriff might state a case anew that might be arguable.

Lord Trayner: You can charge this man over again with another tin of peas.

Mr. Ure remarked that that would be too elaborate a remedy.

Lord Rutherford Clark said that would not be so if the public health was so much destroyed as was alleged.

Lord Trayner: But is this not a waste of time? Your charge is of selling a thing which in itself is not an offence under the statute unless it is injurious to health. The sheriff finds that these peas were mixed with this foreign matter. Upon the rest of the evidence he is satisfied that you have not made out the tenour of the charge that it was injurious to health. Is he not entitled to think so? and what more can he do?

Lord Justice Clerk: It is stated here that a man who ate some green peas had diarrhoea and indigestion, but it is not said that it was the respondent's peas. (Laughter.)

Mr. Ure, at further length, reiterated his opinion that, under certain sections of the Public Health Act onus should be thrown upon the defender, and concluded by saying their lordships should remit the case back to the sheriff to state a proper question of law.

Mr. Salvesen, in reply for the respondent, said he thought the sheriff had stated sufficient to show his mind upon the facts as a whole. He understood the sheriff's attitude to be this:—"I would not have granted a case, but, as the public prosecutor insists that there is something in this case on which to go to a higher court, I shall do my best to state a sort of case for him." The sole question here was whether the peas were or were not injurious to health. The sheriff had given an unequivocal answer to that, after considering the evidence on both sides. If the other party had suggested a question of law which the sheriff had refused to state, it was the exigency of his friend's case that they had driven the sheriff to try and extract some question of law which was not in the mind of any of the parties. He submitted it was an impossibility, when the evidence was evenly balanced, for a judge to incline one way or the other.

Mr. Lees also addressed the court for the appellant.

After their Lordships had consulted,

The Lord Justice Clerk, in giving judgment, said upon the main matter of argument of the appellant it did not appear to him it was a matter which they were called upon to decide at all. He might have an opinion upon it, but he should be sorry to decide particularly upon a case which was unsatisfactorily stated, where no question of law was put to them. It appeared to him that the sheriff here was endeavouring to state a case raising a question of law, but he had practically found himself unable to do so under the desire to enable the party to come here and get the decision of this court. The matter put to them did not put any question of law at all, therefore he thought that

was self-sufficient ground for dismissing this appeal. He might say further, while the case, in his opinion, was very unsatisfactorily stated, containing, as it did, large statements of what the witnesses on this side said, or what the witnesses on that side said, without any findings of the fact on matters detailed, he did find the sheriff had given a distinct opinion of what he thought in a matter of fact, namely, that he found for the respondent in respect that it was not proved that the peas had been injurious to health, which was the matter charged. The only matter which was charged against the respondent was an offence under the Act, and without the peas being injurious to health there could be no conviction.

Lord Rutherford Clark concurred in dismissing the appeal.

Lord Trayner agreed, and added the sheriff had stated what to his mind was sufficient to show that he could not state a question of law.

The appeal was accordingly dismissed, expenses being allowed to the respondent.

MEDICINES ARE NECESSARIES.

His Honour Judge Edge delivered judgment in the case of *Harris v. Drake*, at the Exeter County Court, on Friday.

It will be remembered that the case stood over from the previous court in order that his Honour might consider his decision. The plaintiff, a chemist and druggist, of Exeter, claimed 7*l.* 12*s.* 9*d.*, for medicines, &c., supplied to the defendant, whose husband was formerly a solicitor at Exeter. The question at issue was whether the defendant or her husband was liable.

His Honour said the goods supplied were household necessities, and defendant, therefore, had the right to contract to bind her husband. Had the husband been sued, he should have held him responsible for the debt, and in his opinion it was never defendant's contract, but that of her husband, made through her as his agent. He found, therefore for defendant, with costs.

LIMITED WINE LICENCES.

At the last Brewster Sessions at Wrexham, a certificate was granted to Mr. Gibbons, a doctor's assistant, residing at Adwy, Coedpoeth, to sell Liebig's wine and Coca wine only, the magistrates declining to grant a general wine licence. When the magistrates' certificate was presented to the Excise Officer he refused to grant a licence to sell until the words "Liebig" and "Coca" were deleted. Mr. Henry Humphreys accordingly applied to the magistrates last week on behalf of Mr. Gibbons, to have the certificate amended by striking out the words objected to by the Excise authorities. If this was done Mr. Gibbons was quite prepared to give an undertaking that he would not sell any other wine but Liebig and Coca. The magistrates' clerk pointed out that the time for amending the licence had gone by, and the bench refused the application.

THE WORD "BRITANNIA" AS A TRADE-MARK.

In the Chancery Division, on November 6, before Mr. Justice Chitty, Mr. Byrne, Q.C., moved on behalf of Messrs. Hodgson & Simpson, the Calder Soap Works, Wakefield, for an injunction restraining the defendants, Messrs. James Sinclair & Son, 65 Southwark Street, S.E., from infringing certain trade-marks. There was a cross-action, asking the court to strike one of the marks off the register. Counsel stated that the marks in question were taken out in respect of perfumery, toilet articles, &c. One mark consisted of the word "Britannia," and he understood that the objections raised by the defence were that the word "Britannia" was not a fancy word, and, therefore, ought not to have been registered; and, secondly, that, though the mark had been on the register some time, it had not been used. It came to the knowledge of his clients that the defendants were making use of, or were about to make use of, the mark in question, and they wrote to them on the subject. Correspondence ensued, and the defendants had then acted very fairly. They disclaimed all knowledge that the word "Britannia" was then in use as a trade-mark, and they promised not to make further use of it. It, therefore, sur-

prised the plaintiffs to find in Mr. Whiteley's catalogue "Sinclair's Britannia Bouquet Soap." The defendants, on being again written to, explained that one of their clerks had been to the Trade-mark Office, and, happening to mention the word "Britannia," was told that such a word ought not to be registered, on the ground that it was geographical. He (the learned counsel) thought defendants might have written stating their intention to make use of the mark, especially after the agreement which had been come to.

Mr. Justice Chitty: I doubt whether such an agreement can be sued upon.

Mr. Byrne: There was good consideration for the agreement, the plaintiffs staying legal proceedings, which were at one time threatened. As to the "fancy" objection, counsel urged that the word "Britannia," having reference to the tutelary guardian of the Empire who rules the waves, was, when applied to soap, a fancy word. (Laughter.) He did not suppose for a moment that anyone would come to the conclusion that "Britannia Soap" was manufactured in Britain, as distinguished from France or Germany.

Mr. Justice Chitty: Suppose it was called "Germania Soap," or "Roma Soap?"

Mr. Byrne: As a matter of fact, the word "Britannia" is registered in respect of numbers of other articles.

Mr. Justice Chitty: The word "Britannia" cannot be said to be a fancy word, and a metaphorical use of it will not do.

Mr. Byrne: "Fancy" surely cannot mean only a word not to be found in the dictionary.

Mr. Justice Chitty: Oh no; there is the word "antipyretic." (Laughter.)

Mr. Byrne: It may not be fancy in one connection, but may be in another.

Mr. Justice Chitty: Where is fancy bred?

Mr. Byrne: Echo has yet to answer—Where? (Laughter.) After further argument his lordship reserved judgment.

MR. JUSTICE CHITTY gave judgment on the 10th inst. The argument (said the learned judge) turned principally on the term "fancy word." The interpretation of this term was found so difficult that the Legislature, by the Amendment Act of 1888, repealed that part of the section in which the term occurred. This repeal, however, does not affect the question before me. The leading authority on the question is the decision of the Court of Appeal in "*In re Van Duzer's case*" (L.R. 34, Ch D. 623). It was there held that the words "Melrose Favourite Hair Restorer" were not capable of being registered as a new trade-mark. The court held that "Melrose" was not a fancy word; that it was the name of a place; and that it was not obvious that a person of ordinary intelligence would understand that the name could not be intended to designate the place where the article was produced. "Britannia," said Mr. Justice Chitty, is a well-known geographical term in a well-known Latin form. It was used by Latin authors to designate Great Britain or some part of it, and sometimes as including Ireland. In a similar way, the terms Germania, Italia, Hispania, Sicilia, Hibernia, and others were used to designate countries. These terms, "Britannia," "Germania," &c., although Latin in form, have been constantly used since the Latin language ceased to be a spoken tongue. The term Britannia still appears on the current coin of the realm. The word in its Latin form is not obsolete; it is constantly used, and is intelligible to an ordinary Englishman. It occurs in the well-known patriotic song; it is applied to a compound metal, and to a well-known training-ship; it is employed as the name for streets in London. In fact, notwithstanding its Latin form, it may be said that it has been adopted and naturalised as an ordinary English word. In its primary sense it denotes Britain. It is also used in a secondary and slightly different sense. In accordance with a habit of the human mind which delights in personification, it denotes a symbolical personage; and the plaintiffs urge that the word must be taken in this secondary sense. In my opinion the term ought to be taken in its primary sense as a geographical name. But even if taken in its secondary sense it would not be a fancy word within the meaning of the term as explained by the Court of Appeal. A word is not a fancy word merely because it denotes a thing which

does not exist and never has existed. The terms griffin, centaur, chimera, and winged bull are not fancy terms. They are the common appellations used to designate such fancy creatures. In the words themselves there is nothing fanciful. Again, the plaintiffs urge that the Latin termination is sufficient to make the word a fancy word. If this were so any other trader could at once have appropriated under the Act of 1883 the terms Germania, Italia, and the like, and this reasoning, if followed out, would lead to the palpably absurd conclusion that a trader could appropriate as a trade-mark the word Germania in reference to sausages, Italia to olives, Hispania to wines, or Londinium to porter. There is nothing fanciful in the word Britannia considered by itself; and it is not obvious to a person of ordinary intelligence that it could not be intended to designate the place where the goods were produced or are used. For these reasons I am of opinion that the word "Britannia" was not capable of being registered as a new trade-mark under the Act of 1883, and it will, accordingly, be removed from the register. The motion for injunction, therefore, wholly fails; the motion for rectification succeeds; and on both motions the defendants are entitled to costs.

THE POISON RECORD.

POISON IN THE "POP" BOTTLE.

Richard Thomas, 12, son of a travelling showman, drank from a "pop" bottle which he found in some stables near Manchester. The bottle, as usual, contained a corrosive fluid, and the boy died.

FOUR OR FIVE DROPS OF LAUDANUM.

The wife of a railway-guard named Alexander said she had given 4 or 5 drops of laudanum to her infant child because it was "bad in its inside." It was taken to the infirmary, and died there. The child was insured. The coroner adjourned the inquest for a post-mortem examination.

AN OVERDOSE OF LAUDANUM.

Mr. Henry Charles Pickering, a member of the firm of Joseph Pickering & Sons, Sheffield, died last week from an overdose of laudanum, administered by himself to relieve pain.

THE MORPHIA HABIT.

An inquest was opened at Stoke Canon on Friday, November 6, touching the death of Caroline Molland, aged 52, which occurred on the previous Wednesday under peculiar circumstances. John Molland, husband of the deceased, deposed that on Wednesday morning his wife rose about seven o'clock and complained of being rather unwell, but managed to make a cup of tea for him, he being also in ill-health. Almost immediately after leaving the room she fell, screaming. "Father, come to me—I am poisoned; I'm dying." Witness ran to her, and found her paralysed and in great agony. He asked her what she had been taking, and she replied, "My drops. Holman & Ham sent me the wrong stuff. Pull them up for it!" Deceased added that the drops were brought home on the Tuesday night. His wife grew gradually worse and died in about half an-hour. He knew that she was in the habit of taking some drops, but did not know what they contained. He did not like her taking this medicine, and she had cried to him scores of times, saying she could not live without them, having been accustomed to them for so many years. He did not know for certain where his wife obtained the drops, but had seen "Holman & Ham" on small empty bottles. She was queer and excitable at times, but was not so on the morning of her death. She had never attempted or threatened to take her life. As far as he knew the drops were not prescribed by a doctor. They used to be purchased at Mr. Harris's, at Exeter. He thought his wife only had them brought once a week, but from what he had heard since he believed she must have had them much oftener. Mr. P. F. Rowsell, a member of the firm of Holman & Ham, of Exeter, said he had supplied deceased with medicine for the past eighteen months or two years, according to the prescription produced—1½ oz. of solution of morphia to 1½ oz. of

water. Sometimes she had more than that quantity, and did so as recently as Tuesday last, when she was sent 3 oz of mixture, half being solution of morphia and half water. He did not think a poison-label was placed on the bottle. They often put poison-labels on, but they were always removed. There was no signature to the copy of the original prescriptions, and witness expected the deceased picked it up. An apprentice named W. J. Hodges made up the prescription without any authority. Witness took the order and left the bottle on the counter. The carrier came, and the apprentice made up the drops, which witness considered he was qualified to do. Half the quantity supplied on Tuesday would be sufficient to cause death. Dr. Puddicombe, of Silvertown, said he saw the deceased at a quarter-past nine on Wednesday morning. She was then quite dead. He had made a post-mortem examination, and found all the organs excepting the liver perfectly healthy. The liver was slightly softer than usual, which could be explained by some slight fatty degeneration. There was nothing to account for the death. The inquest was adjourned, in order that the contents of the stomach might be analysed.

DRANK FROM THE WRONG BOTTLE.

Thomas Morris, a blacksmith employed by the London and North-Western Railway Company at Crewe, returned home one day, and told his wife he was going to have some whisky. He went into the kitchen and drank out of a bottle which contained spirits of salts, which he used in his work, and the bottle in which it was kept resembled the whisky-bottle. He died in consequence.

THE WEED KILLER CASK.

On Tuesday the adjourned inquest concerning the death of William John Wesley was held by Mr. G. E. Hillman, coroner, at Crowborough, Sussex. The case has been previously reported. Deceased died after a few days' illness. He had taken some home-made wine which had been stored in a barrel which had formerly contained weed-killer. The inquest had been adjourned to allow the contents of the stomach of the deceased and the cask of wine to be analysed by Dr. Stevenson. Mr. Neve and Mr. Grindrod attended the inquiry on behalf of the Acme Chemical Company, by whom the weed-killer was originally supplied. Dr. Stevenson now reported that he had found a distinct quantity of arsenic in the stomach and liver of deceased. The appearance of the stomach was consistent. The wine contained $5\frac{1}{2}$ grains of white arsenic per fluid ounce, equal to nearly 2 oz. per gallon. Two ounces of white arsenic in lumps was found in the bottom of the cask, besides that contained in the wine sediment. The cask contained 13 oz. of arsenic, besides that with which the wood was impregnated. There was enough arsenic in the wine to poison 3000 persons. Henry Armstrong Grindrod, of Tonbridge, Kent, said he was a managing partner of the Acme Chemical Company, carrying on business at Tonbridge. His partner was Mr. William Baldwin, of Richmond Villas, Pembury Road, Tonbridge. The barrel produced came from their premises at some time or other. It might have been in 1887, when they sold a weed-killer to Mr. Charlton, of Tonbridge Wells, in a similar cask to the one produced. He had no doubt that the cask originally contained weed-killer, which was composed of arsenic and soda. It was not manufactured in the same way now, but white arsenic was still the basis of all weed-killers. They used about 2 lbs. arsenic to one gallon of water, but all the arsenic would not be in solution. Lumps of white arsenic would precipitate if the cask stood long enough. The cask would leave the manufactory with the firm's name and address upon it. They had for the past two years painted "poison" across their barrels, in addition to the red labels containing directions for use. They were still manufacturing weed-killer, and it still contained arsenic, but in a much smaller proportion. A book was kept in which they entered the names of every purchaser of their weed-killer, but they did not keep a book as prescribed by the Arsenic Act or by the Sale of Poisons Act. The firm were wholesale dealers in weed-killer, but not in arsenic. All casks should be returned, and they allowed for returned casks. Previous to this case they had not deemed it necessary to brand "poison" upon their casks. They distinguished their casks from wine and beer barrels by painting the head and bottom red with

the name and permanent address of the firm. There were several other manufactures of weed-killers, and all contained large proportions of arsenic. Gentlemen's gardeners commonly made their own weed-killers, and the barrel, therefore, might have been afterwards filled with a weed-killer of private manufacture. They always took trouble to warn the public about using the weed-killer properly. The firm had written to the coroner stating that more caution would be exercised in the future. Mr. Neve said there was no evidence to directly implicate Mr. Grindrod. He explained that the provisions of the Pharmacy Act were somewhat different to the Arsenic Act. Section 17 of the Pharmacy Act provided that it should not apply to sales by wholesale to retail dealers in the ordinary course of wholesale dealing, and in the Arsenic Act this preparation was excluded.

The coroner briefly summed up, and the jury returned a verdict of "Death by misadventure," adding a rider to the effect that all poison-barrels should be branded "Poison" in a prominent place, and that empties, if not returnable to the firm, should be destroyed.

Personalities.

MR. W. R. KERMATH, of St. Andrews, has been elected a baillie of that ancient burgh.

MR. J. R. ROADNIGHT has purchased the pharmacy of Mr. A. C. Thompson Smith at 2 Manor Terrace, Sidcup, Kent.

MR. J. HILL, of Aston, has bought through Mr. F. J. Brett, of Leicester, the business of Mr. E. Powse, 418 Lady-pool Road, Birmingham.

MR. R. GRIFFITH, of Slough, has taken into partnership Mr. H. E. Walden, and the business will be henceforth carried on in the name of Griffith & Walden.

THE business of Messrs. Grindley & Son, Northgate Street, Chester, which has been carried on for a short time under the style of Fripp & Co., has now been transferred, in consequence of the death of Mr. Percival Kossuth Fripp, to Messrs. Samuel Cheers and John Henry Hopley, who will conduct it under the name of Cheers & Hopley.

ALDERMAN TAYLOR, of Rochdale, who was elected mayor of his town this week, has for many years declined to be mayor on the ground that the occupant of the civic chair should be given a salary to meet his expenses. Until this week the council have resisted this departure, but they at last gave way, and set aside a sum of 250*l.* by way of salary. When the worthy alderman beard, however, that they had only given way to him personally, and not to his principle, he at once sent in his resignation.

MR. JOSEPH WILD, the new mayor of Hyde (Cheshire), is, in the best sense of the expression, a self-made man. He was apprenticed at the age of ten (!) to the late Mr. John Taylor, chemist and druggist, Market Street, Hyde, in whose service he remained till he attained the age of twenty-one. In 1851 he commenced business on his own account in Flowery Field, and in 1853 he removed to Clarendon Place, Hyde, where for thirty-five years he carried on a very successful business, to which his son, Mr. George F. Wild, succeeded. From 1853 to 1883 he was a member of the Pharmaceutical Society, and for about fourteen years he acted as its local secretary. Mr. Wild has been intimately associated with the municipal life of Hyde, both before and since its incorporation, and in the public life of the town generally he has taken a prominent part. He was a member of the Relief Committee during the memorable cotton famine, 1863-4; he was for many years a member of the committee of the "Hyde Sick Kitchen"; for three years he was one of the representatives of Hyde on the Stockport Board of Guardians, and he has held various prominent positions in connection with the Hyde Reform Club and Liberal Association. He is connected with the Wesleyan denomination, and has spent half a century in connection with the Sunday school, day school, and chapel, having filled the various offices of teacher, librarian, secretary,

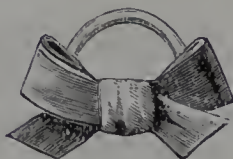
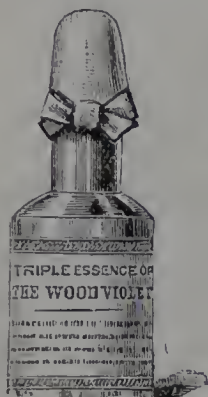
treasurer, superintendent, steward, day-school manager, and acted as organist and choir-master for over thirty years. On the 23rd of this month Mr. Wild attains the sixty-second year of his age.

Trade Notes.

THE LOFODEN COD-LIVER OIL COMPANY have removed from Vine Street to 138 Minories.

MESSRS. HOLMAN, HAM & CO., of Exeter, have removed to the opposite side of High Street, where they have had erected a handsome shop with every convenience for a dispensing business. The "Doctor's Desk" and cases containing the new medicines introduced by Messrs. Burroughs, Wellcome & Co. are prominent features of the new establishment.

"BEAULETTES."—A bottle of perfume is scarcely complete without the neat bow of silk ribbon round the cap, which leading perfumers have popularised. Some people can tie a neat bow; most people cannot. For all a pretty



novelty has just been introduced by The Beulette Company, 48 Greek Street, Soho Square, W. The "beulette" is a bow of silk ribbon attached to an indiarubber band. The band keeps the leather or other cap well secured, and in the finished state the bottles have the appearance shown in the figure. The "beulettes" are made in various pretty colours. The exact size is shown in the second illustration.

MESSRS. H. BRONNLEY & CO., the manufacturers of "private brands" of toilet soaps, have removed their works from Verulam Street, Holborn, to 35 Danbury Street, Islington. We desire to make this notification particularly prominent as, in consequence of a misunderstanding, we have been publishing their old address in several recent advertisements.

MESSRS. POTTER & CLARKE, Raven Row, E.C., last winter introduced, in a quiet way, a "Datura Asthma Cure," and it took so well that they are now making it more generally known. The "cure" is neatly put up in shilling canisters. The cheapness alone should sell it; but to make it go Messrs. Potter & Clarke offer to furnish every buyer with a plentiful supply of attractively-printed handbills.

PEARS' CHRISTMAS ANNUAL, 1891, is a shillingworth which not only beats easily all Christmas Annals hitherto published, but which overshadows their own previous record in respect of art for the million. The Annual proper comprises a reproduction of Dickens's "Cricket on the Hearth," and a clever new story by H. Herman, entitled "A Night at Spa." There may be some people living who have not read about Caleb Plummer and his blind daughter, and to these the Annual will be worth anything nameable. To those who have read it, the opportunity of getting this specially-illustrated *édition de luxe* of it should be welcomed eagerly. Besides the book, three magnificent new chromo lithographic pictures are given, each about 24 inches by 20 inches. These are:—"Oriental Colours," by W. S. Coleman; "The Garden of Eden," by Fred Morgan; and "A Good Joke," by P. Tarrini. Messrs. Pears seem scarcely to know how to be lavish enough. They deserve hearty congratulations on their enterprise.

DR. CARREY'S ELECTROMAGNETIC PAD AND POWDER are sold in Strasburg for curing rheumatism, nervous headache, toothache, and other ailments. They are, the *Pharm. Cent.* reports, simply a bag and box of flowers of sulphur—the former 130 grammes, and the latter 40 grammes. For this lot 4 marks.

Gazette.

PARTNERSHIPS DISSOLVED.

Aked & Pott, Macclesfield, aerated-water manufacturers.
Clarkson & Sykes, Ashton-under-Lyne, mineral-water manufacturers.
Hornby & Gould, Teddington, chemists and druggists.
Phillips & Deepling, Southend, physicians, surgeons, and general medical practitioners.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDERS.

Gray, William, trading as Gray & Co., Wath-on-Dearne, soap boiler and manufacturer.
Lamplough, Cecilia, Glynneath, silica-brick manufacturer.
Lamplough, Henry, late of Glynneath, silica-brick manufacturer.
Seys, James Aneas, Newport, Mon., chemist and druggist.
Webb, Arthur Hawksley, Bradford, Yorkshire, surgeon's assistant.

ADJUDICATIONS.

Lamplough, Cecilia, Glynneath, silica-brick manufacturer.
Lamplough, Henry, late of Glynneath, silica-brick manufacturer.
Pimm, Arthur Tickner, & Chivers, Samuel Isaac Padfield (late trading as Pimm, Chivers, & Co.), Cardiff, drysalts and merchants.
Tyrrell, Thomas Henry, Luton, chemist.
Webb, Arthur Hawksley, Bradford, Yorkshire, surgeon's assistant.

ORDER MADE ON APPLICATION FOR DISCHARGE.

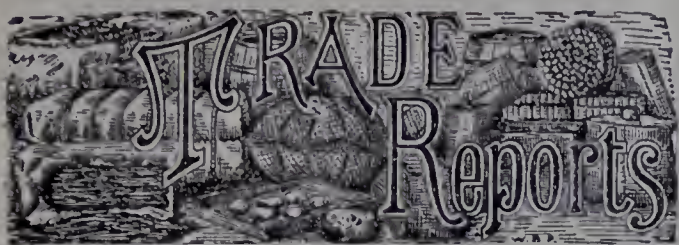
Symes, William Sandham, Chesterfield, doctor of medicine—discharge granted subject to certain conditions.

NEW COMPANIES.

ESCAPAPIAN DRUG STORES (LIMITED).—Capital 2,000*l.*, in 1*l.* shares. Objects: to carry on the business of analytic, dispensing, and general chemists, patent-medicine manufacturers, &c., in all branches. The first subscribers (who take one share each) are:—L. H. Ford, 27 Balls Pond Road, Dalston, physician; E. Levette, 69 Edwards Street, Kennington, botanist; Emily P. Ford, 37 Crowhurst Street, Brixton, widow; G. Bowle, 36 Fitzroy Square, chemist; W. H. Hann, 129 Shirley Road, Southampton, accountant; W. Johnson, 24 Brunswick Square, W.C., financial agent; and W. Holmes, 166 High Holborn, accountant. Registered without articles of association. Office: 233A Kentish Town Road, N.

NATURAL MINERAL - WATERS SYNDICATE, LIMITED.—Capital, 2,000*l.*, in 1*l.* shares. Objects: To carry on business the nature of which is sufficiently indicated by the title. The first subscribers (who take one share each) are: T. R. Meltzer, 6 Bolton Gardens West, South Kensington, underwriter; S. E. Meltzer, 37 York Street, Portman Square, W., secretary; E. W. Stead, Devonshire Chambers, Bishopsgate Street, E.C., accountant; A. G. Evans, 116 Palace Chambers, Westminster, civil engineer; T. Hutchings, 143 Cannon Street, E.C., merchant; C. L. Fielder, 6 Victoria Street, S.W., draughtsman; and J. McCarthy, 6 Victoria Street, S.W., surveyor. There shall not be more than five nor less than two directors. Remuneration and qualification to be determined in general meeting.

WHAT are the laws concerning the sale of poisons? plaintively asks the *New York Herald*. Yesterday a youth rushed into a chemist's shop and asked for "tuppen'orth of oxalic acid." The affable alchemist handed him a package containing enough of the stuff to make half a parish writhe and succumb. A visitor asked, "Is that the way you sell poisons?" "Ay, verily," was the response; "but we put a red poison-label on it." "But if that young man uses it on his mother-in-law?" The chemist sighed. "He will then do it with malice prepense and aforethought, and the gallows will bear fruit."



Notice to Retail Buyers: It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

The first pages of this report deal with the markets up to Wednesday evening. Our reports of Thursday's sales and the latest information are appended under a distinctive heading.

THE QUALITY OF AMERICAN BROMIDE OF POTASSIUM.—In a recent report published by a German drug-house, the allegation occurred that American brom. pot., which has recently been exported largely to Europe, did not comply with the requirements of the German Pharmacopœia (which limits the permissible percentage of chloride in the salt to about 1.35 per cent.) and contained from 5 to 6 per cent. of chloride. A prominent New York firm, who claim that all the recent shipments to Europe have been made through their intermediary, write to us to protest against the German statement. "We have not," they say, "received a single complaint of quality. The American bromide stands the tests of the P.B., and not only that, but it is fully up to the requirements of the Ph. Germ. III., and we are now selling large quantities in Germany where it gives the greatest satisfaction." They also send us a certificate given by the analytical chemists to the New York Produce Exchange to the effect that a sample of 50 cases American bromide of potassium, drawn by the analysts' agent, contained 98.96 per cent. of bromide of potassium, and 1 per cent. of moisture, and that a very small amount of chloride could be detected by distillation with bichromate of potassium and sulphuric acid.

GERMAN EAST AFRICAN PRODUCE.—The German East African Company and its kindred associations are proceeding energetically with their work of developing the natural resources of their territory. Following the example of their British fellow-organisation in securing the services of a practical Ceylon planter to superintend its new culture, the German East African Plantation Company have engaged a Mr. John Schroeder, an experienced Sumatra tobacco-planter, as expert adviser for their cultures. Mr. Schroeder has already commenced his duties and pronounced himself exceedingly satisfied with the produce and the capacities of the Lewa plantations. The German East African Company have been so unfortunate as to lose the services of their plantation-manager, Dr. Hindorff, who has had to resign through ill-health. A successor to that gentleman will be appointed shortly. Dr. Peters, who is now commissioner in the Kilimanjaro district, reports that he is busy with plantation work, and has attained excellent results already.

CINCHONA SAMPLING IN AMSTERDAM.—It is well known that for a long time the method of sampling cinchona in Amsterdam has failed to give general satisfaction. The plan hitherto followed has been to allow the analysts appointed by the importers and the agents of the buyers to take against payment each a sample of bark from every bale of a certain parcel. Experience has shown that the analyses of the samples are not only often at variance with that of the bulk of the parcel, but absolute, or even approximate,

accord in the results obtained from any one parcel by various analysts is exceedingly rare. This unsatisfactory result probably arises from the fact that the samples are always taken from the top of the bale only, whereas the contents of the package are made up of parts of various trees, differing in alkaloidal contents. In order to remedy these drawbacks a meeting of gentlemen interested in the subject was held in Amsterdam on October 30, under the auspices of the Kina-Etablissement or cinchona warehouse. Mr. Gustav Briegleb presided, and there was a full attendance. After some discussion it was decided, practically unanimously, to adopt a fresh system of sampling manufacturing barks. The Kina-Etablissement will provide, at an estimated cost of from 400l. to 500l. a 3 or 4 h.p. steam-engine, mills and other plant required for drawing samples on the new system. Importers and merchants are still to be allowed, if they like, to draw samples on the old plan, but it is thought that few, if any, of them will do so. Under the new scheme the samples will be drawn by special instruments from every part of each bale forming a parcel. The whole of this sample will be ground to powder, and a 150-gramme (about 5-oz.) sample of this will be furnished to each applicant. The cost of the new method of sampling to the Kina-Etablissement is computed at about 3d. per bale, and to defray this the importers will pay 2d. per bale sampled and a charge of 2d. per 5-oz. sample will be made to all applicants. The quinine manufacturers declared their approval of the scheme except the agent of the Frankfort works, who announced his intention to adhere to the old method. The Brunswick works stated that they would require samples unground as well as ground.

ADULTERATED MOGADORE WAX.—Mogadore wax is seldom, if ever, met with in a pure state in our markets. For many years the usual adulterant has been an animal fat, which could be easily separated in the melting process. Of late, however, several parcels of Mogadore wax have been imported here directly or *via* Hamburg, which were clearly not falsified by that means, though they were apparently sophisticated in some way. One of the importers, with a view to check this new mode of adulteration, handed us a sample of a parcel of such wax with the request that we might test it. This we have done, with the result that we are able to state that the sample does not contain goat's fat or any other saponifiable fat. We have found in it unmistakable indication of the presence of paraffin wax, or ceresine, and the physical properties of the sample fully corroborate this. Pure beeswax has a specific gravity of .964. The British Pharmacopœia allows the limits .950 to .970, which might permit of a little adulteration, but the melting-point, 146° F., guards against that. The sample of Mogadore wax which we have examined has a specific gravity of .931 and melts at 124° F. We judge from this and other characteristics that it contains at least 40 per cent. of paraffin wax. Those who have been in the habit of using Mogadore wax have been able to free it from the goat's fat (which has been its usual adulterant) by saponification with an alkali. But this does not serve for paraffin—in fact, the new adulterant is not separable from the wax by any practicable means. The only thing which is likely to persuade the people, whoever they are, who have adopted this method of falsifying wax to abandon their new practice and return to the less objectionable, although not more honest, expedient of incorporating goat's fat with their wax, is to show them that this particular form of dishonesty does not pay. We are glad to hear that the consignments of paraffinated beeswax now in the market, if they should prove saleable at all, are likely to show a heavy loss to their shippers.

ACID (CITRIC).—Slow of sale at 1s. 4½d. to 1s. 4¾d. per lb. on the spot. Juice is still quoted at 18l. 10s. f.o.b. Messina.

ACID (TARTARIC).—May be had at 12¾d. to 13¾d. per lb. on the spot, according to brand.

BALSAM (CANADA).—Fine bright qualities, though still low in price (1s. 2d. to 1s. 2½d. per lb. for cases), has advanced slightly in America, and it is hinted that, before the arrival of the new crop next summer, there may be serious scarcity in the supply.

BALSAM (COPAIBA).—New York quotes lower prices for this drug, pure *Maranhão* balsam being offered from there at 1s. 10d. per lb., o.f.f. terms, thin *Pará* at 1s. 11d. per lb., and *Carthagen* at 1s. 10d. per lb. But it is thought that there may be an early change in the position towards higher prices.

BALSAM (TOLU).—Advancing. New York quotes 1s. 3d. to 1s. 3½d. per lb., c.i.f. terms, with short supplies. There have been no arrivals there, it is said, for a long time.

CAMPHOR (CRUDE).—There has been an arrival of 169 tubs per *Rudnorshire* from Kóbé this week.

CAMPHOR (REFINED).—The market is firm. *English* bells are held for 1s. 7½d. to 1s. 8d. per lb., according to quantity, by the manufacturers. The German makers ask 1s. 5½d. to 1s. 6d. per lb. net, but their quotations are slightly shaded by second-hand dealers. The firm who recently imported a consignment of *Japanese* refined camphor say that they have a large shipment on the way, and maintain that they will be able to get 1s. 5d. per lb. for it. A certificate of incorporation has been filed at Trenton, New Jersey, U.S.A., of The Japan Camphor Company, with a stock of \$100,000. The managing agents are Gribble & Nash, 76 Broad Street, New York; and H. Lucas & Co., Hiogo, Japan.

CASCARA SAGRADA.—Reports from New York speak of a somewhat better tendency, generated by the very low figure to which quotations have now fallen. Consumers in the States and abroad are said to be buying, and good quality is becoming somewhat scarce. These are the last quotations: Fine thin old quill bark, 32s., c.i.f.; good current quality, 28s., c.i.f. (steamer shipment for New York), 21s. 6d., c.i.f. (sailer-shipment for San Francisco). Further consignments of cascara have been made to London from San Francisco and New York.

CHARCOAL.—Prices have advanced recently, animal grain being now quoted as high as 20s. per cwt., and wood charcoal in levigated powder at 28s. per cwt.

CHILLIES.—There has been a heavy drop in this article. At auction on Wednesday 34 bales recently imported Zanzibar chillies, rather dull and stinky colour, sold at 50s., a decline of about 15s. per cwt. from the nominal top figure of last week.

CINNAMON.—About 500 bales Ceylon cinnamon have lately sold privately at 6½d. per lb., c.i.f. terms, January-February steamer, but nothing is now offering below 6½d. per lb.

CLOVES.—Steady, with small sales at auction of medium to very good bright Zanzibar, at 3½d. to 3¾d. per lb. Ordinary unpicked to fair *Penang*, partly of old import, sold at 6½d. to 9d. per lb. Privately the market was rather dearer before the auctions.

COCAINE.—Some of the German manufacturers quote higher prices again. They now talk of 24s. to 25s. per oz., but there is at least one German maker who has not advanced his quotations beyond 22s. 6d. per oz. Four packages of crude cocaine have been received from Callao per *Pará*.

COCA-LEAVES.—*Trucillo* leaves are offering at 1s. 3d. per lb., c.i.f., for fine green quality from New York. Good dark green *Huanoco* leaves are in strong request; 1s. 7d. per lb., c.i.f., is the quotation.

CREAM OF TARTAR is somewhat easier again, the scarcity being no longer so pronounced. There have been sales of best French crystals at 93s. 6d. per cwt. this week. Perhaps 93s. would not be refused now.

DRAGON'S BLOOD.—The *Glenfalloch* has brought 9 cases from Singapore and 1 from Penang.

ERGOT OF RYE.—The honours of the week, in an otherwise desperately humdrum market, belong undoubtedly to this article. Of *Russian* ergot there is none to be had on the spot, nor do we hear that anyone can offer for forward delivery. We have heard that a bld of 1s. 10d. per lb. for *Russian* ergot for shipment has been refused this week. Spanish ergot has reached the two-shilling limit, and owners now ask from 2s. to 2s. 3d. per lb., according to their individual fancy. There are not wanting those who think that the rise is being overdone, but the balance of opinion seems

to incline to the view that the article is safe for a further rise. They say, in support of their view, that the drug is one for which there are no substitutes, and that Spain is now the only country from which supplies can still be looked for, Russia and Germany offering nothing, and Italy having produced very little this year. There are one or two fair-sized parcels now landing, however.

GALLS.—China galls are reported cheaper, with sales of 300 cases at 50s. 6d., c.i.f. terms—a decline of 1s. 6d. from the highest point.

GALLS (TURKEY).—On October 31 the Smyrna market closed very firmly with a stock of about 10 tons. Black Yerli galls in particular were well kept up. The arrivals from the interior remained very slight.

GAMBIER.—Towards the close of last week the delivery market assumed a somewhat firmer tone, and about 100 tons sold at 20s. 1½d. per cwt. for November-January shipment.

GAMBOGE.—We have received two cases per *Glenfalloch* from Singapore this week.

GINGER.—Rough Cochin ginger has continued in demand. Business was done at the end of last week at 35s. for D, 50s. for C, and 90s. for A cut, and up to 39s. for washed. At auction 790 packages Cochin ginger offered, but nearly all bought in, owners being exceedingly firm in their views. Forty-five cases were sold at high prices, however—A cut at 90s., B at 62s., small cut C at 50s., medium, partly cut, at 51s. 6d. per cwt. For *Bengal* ginger 27s. 6d. has been paid, and 30s. is now asked. A sale of 80 bags African ginger, at 25s. per cwt., took place in Liverpool a few days ago.

GUINEA GRAINS are higher in value, with sales at 23s. per cwt. in Liverpool.

GUM ARABIC.—Part of the recent arrivals in Liverpool are reported sold at the rate of 60s. for *Gehzirah*, and 35s. per cwt. for Egyptian Amrad gum.

GUM ELEMI.—Fine white Manila elemi is now procurable at 45s. to 46s. per cwt.

HONEY.—Chilian continues to sell well in Liverpool at higher prices. About 200 kegs were disposed of last week prices varying from 28s. for Pile II. up to 36s. per cwt. for Pile X.

INSECT-FLOWERS are rising. The importers differ to some extent in their quotations, but they all ask for more money than last week. During the month of October the Trieste stock, it is said, has shrunk from 380 to 290 tons. To-day's prices are as follows:—Closed flowers, 75s. to 80s.; half-open, 60s. to 68s.; open, 52s. to 58s.; wild flowers, 86s. per cwt., all c.i.f. terms.

IPECACUANHA.—The arrival of which we spoke as being due last week is a very heavy one—166 packages. The whole of it has gone to one broker.

JALAP.—An arrival of 25 bales of new-crop jalap root was received in New York last month. At the close of the month the parcel was still unsold in the Custom House. For good *Vera Cruz* root 2s. per lb. is asked in America. There is some idea that further receipts of new crop-root may soon force prices downward.

JUNIPER BERRIES.—Fine qualities are said to be very scarce in Italy, and no longer procurable below 7s. per cwt., f.o.b. Leghorn: common and medium grades, however, may be had at much lower figures.

NUX VOMICA.—There has this week been an arrival of 458 packages from Cochin.

OIL (COD-LIVER).—Firm, with sales of good non-congealing Norwegian at 75s. per barrel c.i.f. Quotations run from 75s. to 76s. c.i.f. per barrel.

OIL (PEPPERMINT).—The New York market appears to have lost much of its activity during the month of October. It is true (a correspondent writes) that the crop, both in Wayne County and in Michigan, is smaller than last year, but this does not mean that there is not plenty of oil available, if the growers can be induced to part with it. Owing to the little flurry that took place about six weeks ago, the farmers think the market was going up, and, as they had a most prosperous year with other crops, are in no hurry to sell their peppermint. It is also quite true that the quantity taken for

export this season has not been one-fourth of that of former seasons, but, if enough has been shipped to supply the demand for the present, then a slight reaction may be seen. Those who have not secured supplies should be on the watch for this, and, in any case, they must not expect very much lower prices than those now prevailing. With regard to the H.G.H. brand, the bulk of the stock in New York—say 600 cases—is still held by one speculator, who must be getting anxious to unload, as he has been carrying most of it for a year. The actual demand does not appear to be large, and is satisfied readily by what Mr. Hotchkiss is bottling. Speculation in London is stimulated for a purpose.

OPIUM.—We are in possession of the following from Smyrna:—During the first week of October the prices of opium in Smyrna declined considerably. Buyers then commenced to appear, and, under the influence of their purchases, *Manufacturing* kinds again rose from 2*d.* to 3*d.* per lb., at which advance they are now firmly held. *Karahissar* remained unchanged. The total sales during October amount to nearly 850 baskets (equivalent to 720 cases), chiefly for account of the Dutch Government, and for the American markets. For the Indian Department the original contracts were for 500 cases, but they have now been augmented to 750, and it is estimated that the contractors will still require about 200 more to fulfil their engagements. It is, therefore, still uncertain how prices will rule later on. Should the demand continue, our market will be maintained, more especially as the rains we have had hitherto have not been sufficient to enable our farmers to make much progress with the winter sowings, the earth being still too dry for that purpose. The market closes firm with buyers. The arrivals from the opening of the season up till October 31 in this market are 2,650 baskets, against 1,250 at the same time last year, and the sales since the commencement of the season in July last amount to 1,500, of which about 150 were taken on speculation, leaving a stock on hand of 1,750 baskets, including what remains over of the old crop.

ORRIS.—There has been a considerable demand for Mogadore root this week, and we hear that the bulk of the available supply has been cleared at prices running from 27*s.* 6*d.* to 30*s.* per cwt. For fine *Florentine* 140*s.* f.o.b. is said to have been paid for shipment. Prices are now so high that business is seriously interfered with in consequence. A report from Leghorn, dated November 1, tells us that the transactions in the market have become almost nil.

QUILLAIA is very firmly held at 33*s.* per cwt. in Liverpool.

QUININE.—The following is the summarised view of one of the leading New York wholesale houses upon the position of this article in the States:—"Up to the present the consuming demand has been very disappointing, and certainly not up to that of former years. This is a very serious point, for if the demand falls off and the production keeps increasing, as it is well known to be the case, a crisis is sure to come that must end disastrously for somebody. In October a London speculator shipped about 80,000 oz. of Anerbach brand to our market, and sold at a price that netted him probably 8½*d.*, London terms. He will find, however, that the dealers here are prepared to run this market, and do not propose to have it interfered with, except at a gain to themselves." The market has been slightly in buyers' favour this week. On Tuesday sales of about 15,000 of second-hand German bulk were made at 9½*d.* per lb. The imports of quinine into the United States during the eight months ending August 31 were: in 1891, 1,917,537 oz.; in 1890, 2,420,696 oz. The imports of cinchona bark during the same periods were 1,791,442 lbs. and 2,378,128 lbs. respectively.

SAFFRON.—Quotations show no alteration at present, but all signs are in favour of lower rates in the near future.

SARSAPARILLA.—The New York corner in Mexican sarsaparilla root collapsed in consequence of the pressure of uncontrolled arrivals, and the market has fallen considerably. Best *Vera Cruz* is now offering at 6*d.* per lb., c.i.f. terms. Other reports from New York, dated October 31, say that large quantities of Honduras sarsaparilla are expected there, but owners, nevertheless, are holding on firmly.

SENEGA ROOT is plentiful in America, but the quality of the last crop is said to be unusually low.

SHELLAC.—At the auctions about 1,200 cases were offered. Most of this was held at limits above current values, but 669 cases were sold, with good competition, at an advance of 1*s.* to 2*s.* per cwt. upon *Orange* and ordinary *Button* lacs. No *Garnet* lac was offered. The following were the principal features of the sale:—For *Orange* lac, G in double triangle, fine pale unworked, 102*s.* 6*d.* was refused; fair reddish to bright sold at 95*s.* to 98*s.*; partly blocky and cakey red, 93*s.* to 95*s.*; common to livery and blocky, 91*s.* to 95*s.* per cwt. Ordinary unworked second *Button* sold at 93*s.* to 94*s.*; block, at 90*s.* to 93*s.*; ordinary dark, at 84*s.* to 85*s.* per cwt. Some business in AC garnet is reported at 96*s.* per cwt., net, on the spot. Since the auctions the market has been firm, but with little or no business. Last week's market closed exceedingly firm, with business in second orange TN on the spot up to 97*s.* per cwt., net, and bronze lac at 90*s.* per cwt. less discount. The Calcutta market was very firm, quoting TN November-January shipment at 99*s.*, c.i.f. terms, and Garnet AC at 95*s.*, c.i.f. The present week opened also with a firm tendency and a fair amount of business at somewhat higher prices, mostly in orange lac on the spot.

SIMARUBA.—The New York market is almost bare of supplies. A very small quantity of good bark is being offered still at 9*d.* per lb.

STICKLAC.—According to Calcutta reports, dated October 21, the Kusmi and Rungeen sticklac crops are far short of last year's, and supplies from these sources are expected to be small throughout the cold weather. A parcel of 92 cases of sticklac, Knrachee description, but said to be insoluble, was offered without reserve on Tuesday, and sold at from 12*s.* to 14*s.* 6*d.* per cwt.

TONQUIN BEANS.—New Pará beans are arriving in considerable quantities in New York, and are offering at the rate of 2*s.* to 2*s.* 3*d.* per lb. c.i.f. for black to frosted without finding purchasers. Buyers of this drug are again cautioned against the purchase of artificially dried and "manipulated" *Angostura* beans, of which about 20 tons (salvage from the New York fire) are being foisted upon the market by American dealers.

TURMERIC.—The market remains as firm as ever. Bengal root has sold in small quantities at 19*s.* per cwt.

VALERIAN ROOT.—Is again a little dearer, and now stands priced at 26*s.* per cwt.

CHEMICALS IN THE NORTH OF ENGLAND.

THERE has been little change in the chemical market during the past week, business in Liverpool being quiet, with a tendency to flatness. The Newcastle market remains steady and firm.

BLEACHING-POWDER for prompt and forward delivery quoted at 7*l.* 5*s.* per ton, soft-wood casks, free on rails at makers' works, Widnes and St. Helens. Hard-wood casks are quoted at 8*l.* 5*s.* per ton, f.o.b. Liverpool, for American shipments, and 10*s.* per ton less for other countries. Tyne prices for soft-wood and hard-wood casks are 7*l.* 5*s.* and 7*l.* 10*s.* per ton respectively, f.o.b. Tyne.

SODA ASH steady at 5*l.* 8*s.* 9*d.* per ton for 48-per-cent. and 5*l.* 17*s.* 9*d.* per ton for 52-per-cent., f.o.b. Tyne. Caustic, 48-per-cent., 5*l.* 6*s.* 3*d.* per ton, and 52-per-cent. 5*l.* 14*s.* 3*d.* per ton. Carbonated, 48-per-cent., 5*l.* 9*s.* 9*d.* per ton; 52-per-cent., 5*l.* 19*s.* per ton; and 53-per-cent., 5*l.* 12*s.* 6*d.* per ton, f.o.b. Liverpool, net cash. Ammonia-process alkali, 53-per-cent., quoted 6*l.* 12*s.* 6*d.* to 6*l.* 15*s.* per ton, f.o.b. Liverpool.

SODA CRYSTALS very firm at 3*l.* 3*s.* 6*d.* per ton, gross and net weight for casks and bags respectively, f.o.b. Tyne; 3*l.* 12*s.* 6*d.* per ton in casks, and 3*l.* 7*s.* 6*d.* per ton in bags, net weight, f.o.b. Liverpool.

SULPHATE OF COPPER continues flat at 15*l.* per ton f.o.b. Liverpool, for prompt, and 16*l.* 10*s.* per ton for forward delivery.

SULPHUR (RECOVERED).—Very firm and scarce, at 6*l.* 5*s.* to 6*l.* 10*s.* per ton in bags, f.o.b. Liverpool, and 6*l.* 10*s.* per ton, f.o.b. Tyne.

THURSDAY'S MARKET NEWS.

CANNON STREET, November 12.

BUSINESS has been rather dull this week, and there are few alterations of interest to report upon. The drug auctions to-day were again very lengthy, and a somewhat larger proportion than usual of the goods offered was sold. Among drugs the principal article of interest has been ergot of rye, in which there has been a further considerable advance. Jamaica sarsaparilla has risen another penny per lb. Beeswax is dearer, especially Madagascar. Tinnevely senna brings more money for the better grades, and vanilla the same. Insect-flowers are reported dearer from Trieste, Canada and tolu balsams from New York. Calumba has slightly improved. Of myrrh and rhubarb the supply is becoming somewhat contracted. But on the other side of the balance, the number of articles is much larger. We have to report lower prices for buchu leaves, castor oil, ipecacuanha, Cape aloes, tonquin beans, Siam benzoin, and cumin-seed, while gamboge and gum kino are decidedly less firm. In chemicals cocaine is quoted higher by some makers, cream of tartar has slightly receded, and quinine is depressed. The French mercurial importers have made another *coup* to-day by reducing their prices considerably. The following are the principal alterations in outside articles:—Higher: antimony, turmeric, ginger, Guinea grains, and charcoal. Lower: China galls, chillies, fengreek-seed, cloves, and pepper. Shellac has advanced slightly during the week, but closes weaker to-day. The Bank-rate is unchanged at 4 per cent.

ACONITE-ROOT.—Forty-seven bags very bold Nepal root were bought in at 15s. per cwt. to-day, except 3 somewhat damaged, which sold for 14s. For a parcel of 20 bags Japan aconite an offer of 24s. was refused.

ALOES.—Cape aloes, of which 101 cases were offered, declined about 1s. per cwt. in value owing to the rather considerable supplies which have recently arrived. Our stock this week has again been increased by the receipt of 54 cases per *Dunottar Castle* from Mossel Bay. At auction good bright hard green brought 21s. to 21s. 6d.; and fine red ditto the same price; for second quality 20s. was paid; and for some drossy and ordinary slaty from 18s. 6d. down to 15s. Of *Curaçao* aloes about 50 packages were offered; some fine bright liver, better than have been seen in sale for a long time, sold cheaply at 60s. Ordinary dull to very common, from 12s. 6d. down to 6s. An American report states that *Curaçao*s continue to arrive in large quantities in New York, and that there are fully 400 boxes unsold in importers' hands there now. Of *East Indian* aloes the offerings were small, 12 boxes good hard red Zanzibar were bought in at 110s., an offer of 90s. being refused, and 10 kegs very common, in skins, mixed with leaves, dark, sold at 26s.

AMBERGRIS.—Fine quality remains very dear. Two tins showing ambergris of excellent grey colour, but not very strong aroma, were offered to-day; bidding began at 130s., and advanced to 145s. per oz. Both lots were bought in at 180s.

ANTIMONY.—Crude *Japanese* is still rising, and now held for 26l. per ton on the spot. No further business for arrival has been reported since the recent big transaction. *Regulus* antimony is also rising; from 52l. to 55l. is asked to-day.

ARECA NUTS.—Lower. Ten bags wormy and partly broken sold to-day without reserve at 26s.

BALSAM (COPAIBA).—In plentiful supply, but mostly of ordinary quality. For 18 cases from Panama, thin, watery, and yellow, an offer of 1s. 8d. was refused, and for dark and common ditto from 1s. 5d. to 1s. 6d. per lb. was also refused. There was another parcel from Savanilla, rather thin and very yellow to brown in colour, for which there were no bids at 1s. 6d. per lb.

BALSAM (PERU).—Dull of sale with a little business privately at 5s. per lb.

BALSAM (TOLU).—For 6 cases 1s. 2½d. was paid to-day.

BUCHU-LEAVES.—In more abundant supply, 40 packages being offered to-day. The demand still remains brisk, but on the average prices were about ½d. to ¾d. per lb. lower; they range from 6d. to 6½d. for good bright green round leaves (one lot at 5½d.) and from 4½d. to 4¾d. for ordinary stalky ditto; of long loaves, one lot sold at a decline of about 2d. per lb.: it realised 1s. 7d.

CALUMBA has recently been in somewhat better demand, and a slight advance in prices has been realised. Finest clean and selected root has sold privately as high as 60s., while for ordinary picked and cleaned 45s. is the price; at auction to-day a parcel of good yellow mixed sorts sold for 31s. per cwt.

CANTHARIDES.—Three casks very wormy *Russian* sold cheaply to-day at 2s. 7d. per lb. There is more to be had of the same parcel.

CARDAMOMS.—Of 77 packages offered at to-day's sales 47 sold at high prices, the market being very firm. *Ceylon Mysore*: medium to bold, slightly yellowish, 2s. 5d.; smaller ditto, 2s. 2d.; bold yellowish, 2s. 7d. to 2s. 9d.; small to medium ditto, 2s. 3d. to 2s. 4d.; very small, 2s. 1d.; small pods, long and round mixed, 1s. 9d.; partly split and brownish, 1s. 5d. to 1s. 8d. per lb. *Seeds* sold at rather higher prices—2s. 1d. to 2s. 2d. per lb.

CASCARA SAGRADA.—The recent arrival of 163 bales was offered at to-day's auctions; the bark showed a rather ordinary quality—brown, very small, and generally rough in appearance; for sound *Cascara* 24s. 6d. was refused; the damages sold at from 22s. 6d. down to 20s. per cwt.

CINCHONA.—The stock of quinine-bark of all descriptions in London on November 2, 1892, amounted, according to careful computation, to 50,259 bales, composed as follows: Flat and quill *Calisaya* bark, 6,755; crown and grey, 1,494; red, 60; soft *Columbian*, New *Granadan*, *Pitayo*, and *cuprea*, 17,038; *Carthagena*, 1,076. Total of South American barks, 26,423 packages; *East Indian*, *Ceylon*, and *Java* barks, 23,836 packages. On November 1, 1890, the total stock was 51,079 packages.—Of flat bark of *Calisaya* character, soft but bright in colour, 15 bales sold in to-day's sales at 7d. to 7½d. per lb. for sound quality, this being a full price; 86 packages *Guayaquil* bark were all sold. There was one bale of exceedingly fine mossy long quill, for which 10d. per lb. was obtained with difficulty. It is not many years ago that this quality was always strongly competed for at nearly 3s. per lb. For broken mossy and brown quill from 10d. down to 6d. per lb. was paid.

COCA-LEAVES.—A parcel of good bright green, but broken *Truxillo* is held for 1s. 6d. per lb., and a lot of good strong greenish mixed *Huanoco* was bought in at 1s. 7d. per lb.

COCHINEAL.—The demand still remains good, although prices keep low—fair *Teneriffe* blacks, 12d. to 12½d. per lb., and silvers at 12d. per lb. Fine shelly grey blacks are quoted at 1s. 4d. per lb.

CUMIN-SEED is cheaper; for good *Malta* only 36s. can now be obtained; at auction an offer of 34s. was refused; a parcel of somewhat wormy but otherwise good seed, apparently from Tunis, and consisting of 50 serons, sold at 23s. 6d.; 11 bags *Mogadore* brought 19s. per cwt.

DRAGON'S BLOOD.—Of 10 casks 8 were sold to-day at the unimportant decline of about 2s. 6d. per cwt., bold lump, partly bright, partly dull mixed, realising 6l. 5s.; for a better lot an offer of 6l. 10s. was refused.

ERGOT OF RYE seems to be as firm as ever to-day. Of 17 packages which were to have been offered in sale the greater part is not yet landed; for the rest, the broker said he would take 2s. 2d. per lb. for good *Spanish*, and a bid had been made to him of 2s. 1d. per lb.; this parcel was ultimately bought in. Another lot of 3 bags very wormy *Spanish* was shown, and bought in at 2s. 7d. per lb., nominally.

FENUGREEK-SEED.—Somewhat cheaper. The price for two parcels shown at auction to-day was 10s. to 11s. per cwt.

GAMBOGE in small supply at auction, but the market is not so firm as it has been, and if business were forced lower prices would have to be taken. One case of good pickings sold to-day at 12½. per cwt. For a parcel of fine picked broken pipe of good colour, 14½. was refused.

GUM AMMONIACUM.—Two cases, said to be part of a consignment of about 20, were bought in to-day at 140s. per cwt., an offer of 110s. having been refused for them. The quality was very fine medium to bold pale loose almonds.

GUM BENZOIN.—In rather large supply, and selling at somewhat cheaper rates, especially for Siam gum, of which 22 cases were offered; 10 of these sold without reserve at 10½. to 10½. 5s. for old-fashioned good red almondy block; for a rather drier parcel an offer of 8½. 10s. was refused, while pale Siam, partly blocky and rather dense, was bought in at 14½. per cwt. About 75 cases *Sumatra* gum sold at pretty good prices for the better qualities; good pale almondy seconds, slightly false-packed at corners, from 7½. 12s. 6d. to 7½. 17s. 6d.; fair ditto, 6½. 10s. to 7½.; dull thirds, few almonds, and very woody and false-packed, 65s. to 67s. 6d.; ordinary third *Palembang* brought 25s., and fair glassy *Penang* 65s. per cwt.

GUM ELEMI.—Six cases genuine *Manilla*, but dirty, though of good flavour, sold at 32s. per cwt. to-day.

GUM KINO is tending somewhat lower. It was not possible to sell any in sale to-day at the price that has lately been paid, and 5 cases of *East Indian* were bought in; the owner would accept 65s. per cwt.

HONEY.—The selection offered to-day was rather poor. *Jamaica* realises almost unchanged prices, 38s. being paid for fair amber, an offer of 34s. being refused for partly-candied pale but slightly smoky; 3 packages *New Zealand* honey, ordinary pale and rather dirty, sold at 29s.; and some thick sour and fermented *Australian* brought 32s. per cwt. also.

IPECACUANHA.—There were 76 packages in auction to-day, but though the buyers were somewhat scared by the heavy arrivals that have taken place, owners appear to be as firm as ever. They only sold 12 serons, however, and that at a decline of about 2d. to 3d. per lb.; rather woody sound root at 7s. 7d., ordinary woody to good stout but damaged at from 7s. 3d. up to 7s. 8d. per lb. Several lots of *Carthage* root were bought in, one, very ordinary common, selling at 1s. 1d. per lb.; for good stout 6s. per lb. has been paid privately this week.

JALAP.—Of the 7 hales imported nearly twenty years ago, which were offered to-day, 2 found a buyer at 1s. 7d. per lb.; for the remainder 1s. 8d. is asked.

MERCURIALS.—The agents for the French manufacturers have to-day reduced their prices 3d. per lb. for *Calomel*, which they offer at 2s. 10d. per lb.; 2d. per lb. for *Precipitates*, which are now 2s. 11d.; and 1d. per lb. for *Corrosive sublimate*, which is now 2s. 5d. per lb. The English makers will, no doubt, follow suit to-morrow.

MUSK—*Tonquin*, especially in ordinary qualities, is in good supply, and sells rather cheaply; only one caddy of first-pile pods was sold to-day, at 55s. 6d. per oz. for old-fashioned rather skinny small to bold pods; for a lot of thin-skinned pods, grey and blue skin with heavy underskin, rather dry, 70s. per oz. is asked; of third-pile pods 10 caddies were sold, common untrimmed and very damp, at 21s. 6d. to 22s.; for a caddy of fine small to bold thin-skin and well-trimmed *China cabardine* pods 26s. was refused.

OIL (CASTOR).—In large supply at to-day's auctions, 700 cases *Calcutta* oil being shown, of which 500 sold cheaply, mostly to druggists, at from 2½d. to 2¾d. per lb. for fair seconds; the bulk of this was sold without reserve, and shows a decline in value.

OILS (ESSENTIAL).—The following are the current quotations for the principal essential oils of the new crop received from Reggio. *Bergamot*, December-January, 11s. 3d. per lb.; *Lemon*, December-February, 7s. 6d. per lb.; sweet oil and *Orange*, prompt delivery, 7s. 2d. per lb. The recent reduction in the price of some brands of lemon, which

we announced last week, was only of a temporary nature. After one or two days prices, we understand, were again raised.

QUICKSILVER.—The market remains steady at 8½. per bottle from the importers, and 7½. 18s. to 7½. 18s. 6d. from second-hand holders.

RHUBARB.—Very slow of sale, and of about 72 packages shown only 20 were disposed of, at fairly steady prices. *Shensi*: Small to medium fair coat, three-fourths pinky and one-fourth dark in fracture, 1s. 7d. per lb. *Canton*: Small to bold round fine coat, three-fourths pinky fracture, 1s. 4d. per lb. *High-dried*: Small to medium flat, fair coat and fine bright fracture, 1s. 2½d. per lb. For a parcel of fine high-dried 1s. 5d. per lb. is asked. The stock is getting very small, and, unless it is reinforced, prices are not unlikely to advance a little.

SARSAPARILLA.—Grey *Jamaica* root advanced another 1d. per lb. to-day, 25 bales of it being mostly sold at 1s. 5d. for sound, and 1s. 4d. for damaged root. Damaged *Guayaquil*, fair but chunky, sold at 1½d. to 1s. 1d. per lb.

SENEGA.—Declining in price; 6 bales of fair flavour, but rather dark, sold at 1s. 5½d. per lb. to-day.

SENNA.—Of *Tinevelly* senna 364 bales were offered to-day, mostly of new import. The crop is arriving very slowly, and it is said that the whole of it will be scarcely one-third of last year's harvest. There was a good competition, especially for leaves of fine quality, which are unusually scarce. Altogether 336 packages sold at unchanged rates for common and medium, and higher prices for good and fine qualities. Very fine bold green leaves realised 1s. 1d. per lb.; good medium to bold ditto, 6d. to 8½d.; fair, partly yellow mixed, 4d. to 5½d.; ordinary small to medium, stalky and dull to fair, 2d. to 3¾d.; and flimsy specky stalky and partly damaged to very low leaves, of which the bulk consisted, at ½d. to 1¾d. per lb.

TONQUIN BEANS.—Ten cases good bold black *Pará* beans sold cheaper to-day, 1s. 5d. per lb., and 1 case good frosted ditto at 3s. per lb. It seems as if the article will decline still further.

TURMERIC.—The highest price paid for good *Madras* finger until to-day is, we believe, 30s. per cwt.; but we do not think there is anything to be had at that figure now in good quality. At auction an offer of 26s. per cwt. was refused for 18 bags. We hear that a parcel of *China* root is now being landed. The last price paid for good *China* turmeric is said to have been 30s. per cwt.

VANILLA.—The large supply offered to-day was nearly all sold with good competition, short and medium lengths at high prices, long beans at some advance.

WAX (BEES') continues in strong demand, and *Madagascar* wax is fully 5s. per cwt. dearer, 258 packages being all sold at 95s. for ordinary, and from 5½. 10s. to 6½. 5s. per cwt. for fair to fine bright quality. *Jamaica* wax is in short supply and sells well at 7½. to 7½. 12s. 6d. for mixed to good even red. For a parcel of fair yellow *Chilian* wax 6½. 15s. was refused, and 82s. per cwt. has also been declined for *Mogadore*.

WAX (JAPAN).—For good pale, squares 44s. per cwt. is the spot price.

THE AMSTERDAM CINCHONA AUCTIONS.

(Telegram from Our Correspondent.)

AMSTERDAM, Thursday Evening.

At to-day's cinchona auctions 3,691 packages of bark were sold at an average unit of 6 cents (= 1½d. per lb.), showing a barely steady market. Manufacturers' barks in quills, broken quills, and chips sold at 11 to 56 cents (= 2d. to 10d. per lb.), ditto root at 16 to 46 cents (= 2¾d. to 8½d. per lb.). Druggists' barks in quills, broken quills, and chips brought from 13 to 136 cents (= 2½d. to 2s. per lb.), and ditto root 11 to 16 cents (= 2d. to 2¾d. per lb.). The principal buyers were the Anerbach factory, Messrs. C. L. Schepp & Zoon, of Rotterdam, the Brunswick Works, and the Amsterdam Works.



Memoranda for Correspondents.

Always send your proper name and address; we do not publish them unless you wish; if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest; we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

The Franz Josef Springs.

Mr. Hertz, of the firm of Hertz & Collingwood, has lately returned from a visit to Buda-Pest and the Franz Josef springs, for which his firm are agents in this country. Mr. Hertz has sent us some account of his visit, from which we extract the following:—

“Driving to the springs, I passed through the finest and most populous street of Buda-Pest, surpassing in beauty and extent our Regent Street. Crossing the Danube by the beautiful suspension bridge, built over forty years ago, I entered a tunnel which passes under the Imperial castle, the residence of the Emperor Franz Josef of Austria and King of Hungary, after whom the Franz Josef spring, by special desire of the Emperor, is named.

Then driving through the valley of the Blocks and Adelerberg for about half an hour, I arrived at the springs. These are situated in a pretty valley surrounded by vineyards, and, having the purest and clearest mountain air, are recommended by medical men as a beneficial resort for dyspeptic constitutions.

The very difficult task of forming a good road and establishing a perfect drainage, which necessitated the raising of the ground in many places, has been accomplished by the owners of the springs, and by this means they have completed an establishment, with all modern appliances for testing, filling, bottling, packing, and despatching the celebrated Franz Josef water.

I was surprised to find the perfect system which existed. When I first entered, I was ushered through a very long passage of about 250 yards to 300 yards in length, which had, on each side, neatly-constructed sheds containing empty bottles, systematically arranged in lots of 150,000, so that in my estimation, I saw a stock of about 1½ million of bottles.

From there I entered the so-called wash-house, containing large tanks, each having six sprays for washing and syringing the bottles, which, after undergoing the washing three times, are placed on movable trays for filling. Here a perfectly new system of transport commenced, as these trays are all placed on specially-constructed trucks running on electric rails, and are conducted into the building in which the springs are situated, as all the springs are covered by the building.

The springs were all uncovered for this occasion, and I noticed the water being forced by pressure into the reservoir, in connection with which a great number of immense bottling-machines are constantly at work from April to October.

The next process is a systematic arrangement for capsuling, quite new to me, and, I may say, not in use in any of the English bottling establishments, being a special contrivance invented by the engineer living on the premises. I consider it the best system I have ever seen.

The bottles next go into the hands of a number of girls, for drying and cleaning the outside, and further on for labelling. After this I entered the largest building of the establishment, which contains the packing-rooms, in immediate communication with the saw-mills and the carpenters' shop. All cases and packing materials are made on the premises. Large stacks of timber are used daily in cutting up pieces of wood for the cases, and these are prepared in

this large building. The packing, which is going on uninterruptedly, is made easy by another process, as each packer receives, by simply touching an electric communicator, a truck containing 500 bottles, sufficient to pack ten cases. These are afterwards placed on an elevator, transported into the store-house, and despatched all over the world.

Even the straw which is used for packing is given out in bundles, each bundle containing exactly sufficient for one case.

Daily, at 8 o'clock in the morning, before filling commences, the chemist residing at the springs tests the water, and satisfies himself that there is no change, and for the last sixteen years the water has not varied in any respect whatever.

The popularity which this Franz Josef water has attained all over the globe I assured myself of by seeing despatches to every part of the world, partly going out, and partly being prepared for shipment, as it is absolutely necessary that all waters should reach their destination before November, for in time of frost nothing can be shipped from the springs.

It is at present the intention of the town of Buda-Pest to build an establishment near the springs similar to so many on the Continent, so as to bring more prominently before the world the utility of the Franz Josef water.

The Improved Minor.

SIR,—It is pleasing to note that the examiners of the Pharmaceutical Society have been aroused from their slumbers, and have actually come to believe that there is room for some improvement in the mode of conducting their examinations. I cannot conceive how a set of intelligent men could have been so long blind to the inadequate methods they have employed for so many years.

I remember when I left the Examination Hall, after passing the Minor, a student in Galen Place asked me, “What do you think of the Exam.?” I replied, “Well, although I have been successful myself, I am compelled to say that the system of examination is extremely faulty, and wants vastly improving. There's every chance of an incompetent candidate getting through, and there's also the same chance for a competent candidate to be plucked.”

This being undoubtedly the case, there must be a very sore spot somewhere, for the very perfection of an examination system is surely to secure success to the student who knows his work, and failure to the man who is crammed and incompetent. Sadly too many of the latter class, of late years, have hobbled through somehow.

However, I am extremely happy to find that there are hopes of a more enlightened system of examination, and of a system, which, it seems to me, will be much fairer to the candidate, and which will thereby be more effectual in weeding out the incompetent men.

A day for the practical portion is unquestionably the correct thing. I am certain that no matter how smart or how shrewd the examiner may be, it is absolutely impossible for any man to estimate a student's ability as a dispenser by merely giving him one or two stray prescriptions for an hour or so. If you are going to give a man a qualification for life as a dispenser of medicines, you must see him work for a good portion of the day at any rate, before you can form any correct idea of his capabilities.

I am, yours faithfully,

48 High Street, Bedford,
Nov. 10.

WALTER ASTEN.

Cutting and the Patent-medicine Business.

SIR,—I was much amused at the letter in THE CHEMIST AND DRUGGIST of October 31 signed “W. A. Grace.” It is all very well for registered chemists to talk of, the dignity of the trade and the utter abolition of cutting but until a satisfactory remedy is forthcoming I for one suggest swimming with the tide.

Mr. Grace is righteously indignant at the ruinous competition now carried on in Liverpool, and from his letter one would suppose he was altogether above selling a thing at less than full price; and yet on passing his shop I notice painted in gilt letters over the window, “The City Drug Store,” in imitation of a firm in the same street which trades under

that title and does a flourishing business at store prices. I never find fault with a man conducting his business in any way he thinks proper, but I do like to find a man consistent, and I think Mr. Grace's practice is hardly in keeping with his letter.

I am, Sir, yours sincerely,

A LIVERPOOL REGISTERED CHEMIST. (159/47.)

SIR,—During the last five years I have both followed the recommendation of Mr. Grace as to advising a customer to let me put him up medicine specially suited to his complaint when advice as to the merits of a "patent" medicine has been asked, and have also put up a number of proprietary articles of my own at a moderate price. These I expose as much as possible, with the result that although we are now selling most patent medicines at wholesale prices, not only my takings but my profits also have increased since I started cutting.

My chief object, however, in writing, is to ask your readers what they think of the desirability of circulating amongst the public a small book, pamphlet, or almanac, containing recipes for those "patent" medicines in chief demand, and quoting below each recipe a moderate price for the same. I feel convinced that such a proceeding would, to a considerable extent, prove to the public that we (chemists) can supply them at a much cheaper price than they are charged by the proprietors of the aforesaid articles.

I give an example of how it might be written:—

"Jones's Cure-all Pills.—These pills consist of aloes and ginger in the proportion of 8 to 1, together with sufficient soap to make a mass. A pill composed as above can be obtained here price 3d. per dozen. Price of Jones's preparation, 1s. 1½d. for 24 pills."

If an enterprising publisher were to compile a book on the lines I mention at a moderate price, I feel sure that it would have a very large sale amongst those chemists who are anxious to avoid the stigma which is so often cast upon them of being "quack-medicine sellers." The introduction of a few analyses bearing the signature of well-known professional analysts would give an additional weight in the mind of the average British customer.

I am, yours faithfully,

JUSTITIA SIT. (159/30.)

Mr. Coleman Explains.

SIR,—I think a few words of explanation are due from myself in reference to the paragraph which appeared in THE CHEMIST AND DRUGGIST last week *re* the contemplated retirement of Mr. Gwilym Evans from the Pharmaceutical Council.

At the meeting in question I did not intend to convey, nor do I think those present imagined that I was stating, anything special in regard to the retirement of our Welsh councillor beyond what I considered to be common knowledge—namely, that before the 1891 election he wrote a letter which appeared in your columns, stating that he did not intend to seek re-election—that after considerable difficulty he was induced to re-consider his decision and stand—and since then, on more than one occasion, he has intimated to Mr. J. Munday, our local secretary, his intention to retire from the Council at a convenient opportunity, and of which he wished to give him timely notice.

I am, however, well pleased to learn that he has no present intention of retiring, and it will doubtless be a cause of gratification to his many friends and supporters to find that even the prospect of parliamentary honours will not tempt him to forsake his duties at Bloomsbury Square as the representative of gallant little Wales.

I am, Sir, yours faithfully,

Cardiff.

ALFRED COLEMAN, M.P.S.

LEGAL QUERIES.

158/39. *Antipatent* asks: Is it legal for a chemist, not licensed to sell patent medicines, to supply such when ordered on a prescription? [It would be illegal for him to do so, though we understand he might dispense such medicines as *part* of a prescribed mixture.] (2) Can he send such a patent medicine out in his own dispensing-bottle and

label it according to directions given, without infringing on the Revenue, or on the maker of such patent medicine? [It would depend on how it was labelled whether he infringed the rights of the maker. As we have said, he could not evade the medicine-stamp licence or duty by simply selling chlorodyne, for instance, in a bottle different from that supplied by the maker.] (3) A physician's prescription does not justify a chemist in selling wines for the sale of which a licence is required.

139/37. *S. L.* writes:—A patient consults a doctor, who, in addition to his practice, keeps open shop for the sale and dispensing of medicines. The doctor prescribes. Can the patient demand a prescription to get it compounded where he chooses? Or can the doctor insist on supplying him at his own (doctor's) shop? As much, I believe, fraught with weal or woe to dispensing chemists, hinges on this question, I am exceedingly anxious to have an indisputable answer. My own opinion is that as the patient's object was to get advice from the doctor, he has the right to get the medicine at any shop he pleases.

[There is certainly no law in this country in accordance with "S. L.'s" views. A customer has the right to ask the doctor to sell his advice without his physic; but the doctor has the right to refuse to supply one without the other. The doctor may have what he believes to be a very valuable secret formula. Does "S. L." suppose that he could be compelled to part with it? The customer who cannot get what he wants at a shop, whether kept by a doctor or a tinker, has a very simple remedy in his own hands.]

158/27. *W. M.*—Yes; arsenical weed-killer, like arsenical sheep-dip, comes within the scope of the poisons schedule of the Pharmacy Act.

158/1. *A. L. N. M.* says he had a verbal agreement with his landlord in April, 1890, after a fire, that the latter was to put in a new plate-glass front fitted with a revolving shutter. "A. L. N. M." paid the landlord 7l. towards this, and has receipt, but he cannot get landlord to fulfil his promises. By the lease the landlord agrees, among other things, to keep the outside in good and tenantable repair, and to paint and beautify when required. [The particulars given are scarcely sufficient, without perusing the documents, to give an opinion upon of any real value. If, however, the receipt for the 7l. is sufficiently specific, there is, no doubt, a binding contract on the part of the landlord to put up the plate-glass front and revolving shutter. We think the court would allow a verbal explanation to show exactly what was intended. Probably the doctrine of part performance might assist our correspondent, as he entered into possession on the faith of the agreement. If the premises are not in good tenantable repair outside there is a breach of the landlord's covenant to repair, upon which he can be sued. Our correspondent has, therefore, two strings to his bow—(1) to sue for breach of the agreement to put up the new shop-front, or, in the alternative, the return of the 7l. as money had and received; and (2) to sue for breach of the covenant to repair, paint, and beautify.]

88/6. *Frank.*—If the widow is the deceased chemist's executrix, she is entitled to carry on the business. She does not sacrifice that right by remarrying.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Improved Glycerine of Tragacanth.

SIR,—Glycerine of tragacanth, B.P., I do not consider very satisfactory as an excipient for pills—it requires such a quantity. I think it is greatly improved by being boiled, when it becomes a transparent jelly, and more tractable.

EXP. DOCT. (158/52.)

Strychnine and an Alkali.

1591. W. A. R. asks if the strychnine is likely to be thrown out by the sodæ bicarb. in the following mixture:—

| | |
|---------------------------|-------|
| Liquor strychninæ | ℥i. |
| Sodæ bicarb. | ℥ij. |
| Spt. chloroformi | ℥ij. |
| Aq. ad | ℥xij. |

[No. Strychnine is soluble to the extent of 1 in 5,760 of water. Here we have $\frac{1}{2}$ grain of strychnine and 5,250 fluid grains of aqueous solvent.—ED. C. & D.]

Conscientious Dispensing.

SIR,—I have obtained a perfectly smooth mixture by the following method:—

Dissolve cit. lithii in ℥ivss. aquæ, and shoot the tinct. guaiaci and tinct. cinchon. into the solution through a small cone of demy paper.

Strain through muslin, and put the resin which is strained out into a mortar, and rub perfectly smooth, and add the remainder of the mixture.

Glasgow.

Yours truly,
STUDENT. (161/59.)

SIR,—I see in your last issue another correspondent "R. H.," writes in reference to my letter of October 17. He says, "As to adding mucilage, &c., what would he say to the following, which was written by a Liverpool doctor?—

| | |
|--------------------------|---------|
| Ferri arsen. | gr. ij. |
| Aqua chlorof. ad | ℥iv. |

Ft. Mist.

Sig.: A measured teaspoonful, &c."

What I say is, that it proves more and more the necessity of the existence of a rule in every dispensing establishment, to the effect that all prescriptions be made up as written, except when necessary first to communicate with the writer. I believe this is done in many first-class shops. To make mucilage a panacea for all difficulties with insoluble salts and resinous substances, when prescribed in mixture form, is a great evil. It is the parent of careless dispensing, and hinders science in pharmacy. If some such rule here indicated be adopted, there would soon arise a great uniformity in the making-up of prescriptions and a more perfect and complete system of dispensing. But the rule should not be allowed to act antagonistic to common sense and science, for there is no rule without an exception. A medical man may inadvertently make a mistake which common sense on the part of the dispenser might rectify without reference to the doctor; but this has nothing to do with additions and omissions of ingredients to make a mixture look presentable according to the idea of the dispenser.

In the case before us mucilage of acacia would be the very worst thing that could be added. It is incompatible with the ferri arsen., and forms a black deposit.

If "R. H." will well rub the ferri arsen. in a mortar for several minutes, then add about half a drachm of the chloroform water, and again well rub with the pestle, afterwards add the rest of the chloroform water, he will obtain a mixture with a very little deposit, but so easily diffused that, with a "Shake the bottle," and an extra written instruction respecting the shaking of the bottle, the mixture might be sent out. It is, without doubt, infinitely better than if acacia had been added. But it would be better to make the salt soluble first, which may be done by well rubbing it in a mortar with one drop of hydrochloric acid, and a clear mixture will be the result, without deposit.

Truly yours,

68 Fleet Street, E.C., November 10. GEO. P. POND.

MISCELLANEOUS INQUIRIES.

153/25. Tommy wishes to know a reliable test for the detection of Oil of Peach-kernels, when used as an adulterant in essential oil of bitter almonds. We are not aware that these oils are chemically different. Larger quantities of peach-kernels are now put through the process of distillation than bitter almonds, and although the essential oil from the latter is quoted at about double that of the

former, it has to be considered that price is often a criterion of the extent to which adulteration with oil of mirbane has been resorted to. It should also be noted that foreign oil is distilled from peach-kernels and almonds. One may happen to get foreign oil which is distilled from almonds alone, or peach-kernels alone, for the simple reason that these are used indifferently.

40/38. Vet.—Calf-mcal.—The sample which you send differs in composition from the usual article in containing no linseed. You may produce a similar mixture from the following formula:—

| | |
|---------------------------------|--------|
| Barley meal | 4 lbs. |
| Wheat meal | 4 " |
| Ground cotton-seed cake | 8 " |
| Powdered fenugreek | 4 oz. |

Mix.

125/67. Register.—Linoleum Revolver.—The nearest we can make of your sample is represented by the following:—

| | |
|------------------------|--------|
| Paraffin scale | 3½ Oz. |
| Palm oil | ½ " |
| Kerosene | 2 " |

Melt the solids, and work in the kerosene after removal from the fire.

710/91. Sambo.—Preventive for Cows Slipping Calf.—We make this out to be:—

| | |
|---------------------------------|-------|
| Spirit of nitrous ether | 1 Oz. |
| Tincture of opium | 1 " |

Mix.

This for a dose.

Your sample is made with methylated spirit.

145/65. J. H. D.—The substance is chrome alnm.

130/46. Hair-wash has a customer who uses a Hair Lotion and Ointment, the effect of which is stated to be "really wonderful." The gentleman was nearly bald, but is now getting a good crop of hair. The lotion is applied to the roots of the hair with a sponge, and the ointment is applied after the lotion. We can make very little out of the hair-lotion; it contains nothing (as far as analytical methods can detect) unusual to hair-lotions. We suggest the following as a safe substitute:—

| | |
|---------------------------------|---------|
| Tincture of cantharides | ℥ss. |
| Spirit of rosemary | ℥ij. |
| Jockey club | ℥i. |
| Calcined magnesia | gr. xv. |
| Water to | ℥viiij. |

Mix well, and filter.

The ointment apparently consists of:—

| | |
|-----------------------------|---------|
| Vaseline | 1 oz. |
| Spermaceti ointment | 2 " |
| Oil of bergamot | 5 drops |
| Otto of rose | 1 drop |

Mix.

143/19. Zemo.—(1) Your mineral is galena (sulphide of lead). (2) For a Black Harness-varnish we should be inclined to try Brunswick black, with an ounce of Canada balsam to the pint, and thinned with benzene.

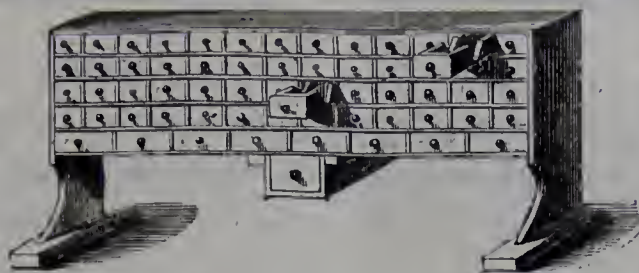
Information Wanted.

132/61. G. O. W. would be glad if anyone would advise him as to the best medical and surgical book for the use of a sea-captain. Ordinary ships' medicine-chest books are too general.

* * * Pressure on our space compels us to keep back until next week several pages of letters and answers to correspondents.

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(PATENTED).



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BLONDEAU ET CIE.,
Ryland Rd., LONDON, N.W.

TO THE TRADE.

WE beg to inform you that, as we promised in our circular of last month, we have started a large and important advertising for assisting our preparation "Bertelli's Catramin Pills." We feel most pleased and encouraged in seeing that we are supported by eminent Physicians and leading Chemists, and we take this occasion to express them our best thanks.

We have much pleasure in being in a position to affirm that our Bertelli's Catramin Pills, as a remedy in the affections of the respiratory apparatus, and especially in chronic cases, will give unexpected happy results. We beg also to draw the attention of Chemists to the fact that our preparation is easy to take, convenient, and unalterable, one of its important merits being that of helping the digestion. As instance of the opinion in which our preparation is held, both by the Medical Profession and by the public, we beg to join a few testimonials:—

"16 North Street, Wolverhampton, October 1, 1891.

"I have been a sufferer from chronic bronchitis for eight years. About two weeks ago, my friend Mr. Hanway, of Horsley Fields, asked me to try your Bertelli's Catramin Pills. . . . I am feeling better altogether, and two boxes more should complete the cure.

"(MISS) JULIA WILLIAMS."

"209 York Street, Belfast, October 5, 1891.

"I received the two boxes of Bertelli's Catramin Pills. I have them tried, and they did much good.

"JACOB WALSH, Chemist."

Report of Dr. BART. SASSELLS, Director of the Civic Hospital, Queen Square, W.C., London:

"April 17, 1888.—Bertelli's Catramin Pills gave excellent results in chronic catarrhal affections, diminishing the cough, facilitating expectoration, diminishing the catarrh. On account of their pleasant taste they can easily be taken and tolerated. They have an undoubted superiority over all other remedies."

Report of Dr. GEORGE SCHMITZ, Imperial Sanitary Councillor, Cologne, who formed part of the Jury of the Medical Section at the International Exhibition at Cologne:

"Having been officially charged to experiment on Bertelli's Catramin Pills, I declare that in children and adults they gave the most splendid results, instantly calming the cough, facilitating expectoration, curing bronchitis and catarrh. On account of their antiseptic power over Koch's tuberculous bacillus, I strongly recommend them to combat tuberculous phthisis.—September 6, 1889."

Report of Dr. REYTER, General Director of the Health Department of the Congo Free State:

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REFINED AND RECRYSTALLIZED.

PURE AND CHEAP:

ANALYSIS.

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|------------------------|-----|-----|-----|-----|-----|-------|
| Bicarbonate of Soda | --- | --- | --- | --- | --- | 97.20 |
| Mono Carbonate of Soda | --- | --- | --- | --- | --- | 1.90 |
| Sulphate of Soda | ... | --- | --- | --- | --- | trace |
| Chloride of Sodium | --- | --- | --- | --- | --- | .035 |
| Molsture | --- | --- | --- | --- | --- | .82 |
| Insoluble | ... | ... | --- | --- | --- | nil |

PURE ALKALI,

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Most economical form of Soda for the use of Printers,
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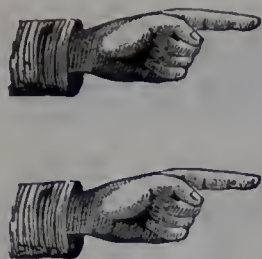
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(Solvay's & Mond's Patents),*

NORTHWICH, CHESHIRE.



The Lancet, August 29th, 1891, says:—CAFFYN'S MALTO-CARNIS—"The title sufficiently describes this preparation, and our examination confirms the description. From the presence of uncooked juice of beef, and consequently meat albumen, it turns semi-solid on heating, and the cold filtered extract rapidly digests starch, while the presence of cocoa is evident to the taste. Analysis showed—mineral matter, 2.50 per cent. (rich in soluble phosphates); total solid matter, dried at 100° C., 66.28 per cent. Nutritious and stimulating elements like these are rarely found combined in so satisfactory a manner as in this new and interesting preparation of the Liquor Carnis Company."



TWO SHILLING BOTTLE.

Double the above size, 3/6.



BOTTLE - BABIES.

It is a sad fact, but, nevertheless, a true one, that the number of bottle-fed babies is on the increase. In the upper classes the calls of society prevent mothers from feeding their own children, whilst in the poorer ranks the constant struggle for life often makes the women unable to do so even when they wish it. This state of affairs is, in the majority of cases, most disastrous to the infants, for a mother's milk is the natural food during the first nine months of a baby's life, and it is a food for which it is very hard to find an artificial substitute. Other kinds of milk are employed, and of these the milk of the ass or the goat most nearly approaches human milk, and may therefore be used without much harm following; but, unfortunately, comparatively few people are able to procure either of these varieties, and are compelled to use cow's milk. Now, the disadvantage of cow's milk is that when it reaches the stomach it coagulates, forming dense indigestible curds. The result is that the poor child gets a bad stomach-ache, and usually vomits the offending mass, together with the remainder of its meal. It gets fretful, is always crying, and above all it gets weak, and in time gets rickets, and probably grows up with bowed legs, a crooked spine, liable to convulsions, and various other ailments. In order to prevent this curdling, or to digest the curds when formed, various substances may be added to the milk in the bottle, one of the best of which is * "CAFFYN'S LIQUOR CARNIS." The clot formed when it is used is light and very easily digested, whilst it is also a most excellent preparation for building up Bone and Muscle, and thus preventing Rickets. If the infant is under six months old, twenty drops of "CAFFYN'S LIQUOR CARNIS" should be added to the bottle each time it is filled; for children over six months and under two years give from half a teaspoonful in their milk three times a day.

* "CAFFYN'S LIQUOR CARNIS (Beef Juice). — A nourishing fluid, consisting of the Uncooked Juice of Meat or Muscle-plasma, permanently preserved by the addition of a definite quantity of a Carbo-hydrate. A valuable Food and Tonic for Infants and Invalids."—*The British Medical Journal*.

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Each Capsule equal to $\frac{1}{2}$, $\frac{1}{4}$, or 1 teaspoonful of Fluid Extract of Cascara Sagrada. They can also be had in combination with $\frac{1}{2}$ or 1 grain of EUONYMIN. In Boxes at 1/6 and 2/6; 14/- and 24/- per dozen. (Also in Bulk.)

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In 3 sizes, equivalent respectively to 1, 2, or 3 Bland's Pills.

These Capsules differ from all others, and have advantages which no others possess. They are made from Pure Unoxidised Carbonate of Iron by a special process. They are so prepared that, while they retain indefinitely the full efficacy of fresh Bland's Pills, they have no tendency to become hard and insoluble by keeping, as the pills often do. They are small in size. Owing to the special process adopted by D., F. & Co., the 3-pill Capsule is hardly larger than a single Bland's Pill. They are soft and flexible, and much more easily swallowed than pills.

They can be had in combination with Arsenic, Nux Vomica, &c. In Boxes at 1/-, 1/9, and 2/6; 8/-, 15/-, and 22/- per dozen. (Also in Bulk.)

EASTON'S SYRUP CAPSULES.

Each Capsule equivalent to 20, 30, or 60 minims of Easton's Syrup.

In Boxes at 1/-, 1/9, and 2/6; 16/-, 17/-, and 24/- per dozen. (Also in Bulk.)

SYRUP. HYPOPHOS. COMP. (Duncan's.)

Some time since we had several samples of well-known SYRUP. HYPOPHOS. COMP. analysed by Mr. D. B. DOTT, F.R.S.E., F.I.C., Pb.C., and in no one case did he find so large a proportion of the active constituents as is found in our preparation by a precisely similar analysis—which analysis is an absolute proof that the proportions of the different ingredients which we state are in our Syrup ARE ACTUALLY PRESENT. We, therefore, submit that from the use of our Syrup the best results may be confidently anticipated.

In proof of our statements we subjoin the report of Analysis referred to.

NOTE.—Our Syrup will darken in colour by lengthened keeping; and so must every Syrup which contains a similar proportion of FERROUS Hypophosphite.

"Analysis of SYRUP. HYPOPHOS. COMP. (grains per drachm)."

| | Duncan's | No. 1 | No. 2 | No. 3 | No. 4 |
|---|----------|-------|-------|-------|-------|
| Hypophosphite of Quinine .. | ·25 | ·14 | ·11 | ·69 | ·12 |
| " " Iron | ·77 | ·72 | ·10 | ·28 | ·15 |
| " " Manganese | ·27 | ·22 | ·00 | ·16 | ·08 |
| " " Calcium | 1·04 | ·00 | ·83 | ·01 | ·15 |
| " " Potassium | 1·00 | ·68 | 1·48 | ·24 | ·29 |
| " " Sodium | 1·53 | 1·45 | 1·54 | ·29 | ·29 |
| The quantity of STRYCHNINE present was not determined. Our Syrup contains $\frac{1}{100}$ grain in each fluid drachm. | | | | | |

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Contains pure Bismuth and Pepsina Liquida in combination with sedatives. A formula most serviceable in the treatment of gastric pain. In 4 oz., $\frac{1}{2}$ lb., and 1 lb. bottles.

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A standard preparation, of definite alkaloidal strength, containing the entire medicinal properties of the finest Cinchona Bark. It is, in fact, Bark minus the woody fibre, and its efficiency has been proved by careful medical enquiry. Dose: Ten to sixty drops.

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Fluid pepsin of extraordinary activity—tasteless, odourless, attractive to patients, and reasonable in price. Every teaspoonful when tested by the official B.P. process is guaranteed to effect the solution of 1,000 grains of albumen. Peptic power is the only test of value. Most of the foetid and repulsive dry Pepsines have proved worthless. In 4 oz. bottles, 2s. 6d. each; and larger sizes for dispensing at a cheaper rate.

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Each drachm contains in a concentrated form, besides the fluid pepsine a full dose of Schacht's Liquor Bismuthi. Dose: One drachm. In $\frac{1}{2}$ lb. and 1 lb. bottles.

N.B.—Peps. Liq. c. Bismutho Co. contains, in addition, one gr. soluble Euonymin in each drachm.

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A perfect solution of Podophyllin, containing $\frac{1}{2}$ gr. in each drachm.

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A pleasant and active form of Cascara Sagrada. Dose: One to three teaspoonfuls diluted. In 4 oz., $\frac{1}{2}$ lb. and 1 lb. bottles.

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One Word More.

We receive many friendly reports from the trade, and quote now from two specimens:—"Mr. F. Downing, Chemist, Lannceston, says: "I find sales gradually increasing; and my customers are well pleased with Gny's Tonic." Mr. F. A. Pint, Dispensing Chemist, of 16 King Street, Jersey, writes: "Gny's Tonic gives continued satisfaction." Perhaps we have said enough this time. We only ask Chemists to keep our preparations in stock, so as to fill the orders sent to them. Without effort on their part the goods sell themselves, bring purchasers to their shops, and help to sell less-known goods. A little special interest in the display and pushing of Gny's Tonic will be found profitable. It may be obtained from the leading Wholesale Houses throughout the kingdom. It is neatly put up, and retails at 2s. 9d. per bottle. Guy's Fruit Pills are prepared in two sizes, viz., 1s. 1½d. and 2s. 9d. per box.

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In **COUGHS, ASTHMA, BRONCHITIS, INFLUENZA, &c.**, its effects are truly wonderful, immediately relieving the tightness of the Chest, allaying irritation of the Throat, promoting Expectoration, and speedily and effectually subduing the Cough.

It soothes the weary aching of **CONSUMPTION**, relieves the harassing Cough, and often prevents those sleepless nights so trying to the sufferer.

In **CHOLERA, DIARRHŒA, DYSENTERY, &c.**, it has proved itself a most valuable specific, quickly relieving the pain and spasms, and seldom failing to check the disease; for which property, as well as for its value in Sea Sickness (for which it is the best remedy known), it should be an indispensable article in every emigrant's outfit.

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F. H. GREEN, M.R.C.S.,
Rochdale Dispensary.

"Peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections."
ALFRED ASPLAND, F.R.C.S.,
Consulting Surgeon to Ashton Infirmary.

"I have used it largely in Spasmodic and Painful Affections, Bronchitis and Neuralgia. It has the property of being readily combinable in ordinary prescriptions—an advantage over all similar preparations."

R. TRAFFORD WHITEHEAD, M.R.C.S.

A Surgeon writes:—"In Diarrhœa, Colic, Ague, Spasms, I have found it relieve more pain and cause more joy than any other article that can be named. Has proved itself a specific against Sea Sickness."

Island Bridge, Dublin.

"I am pleased to say that although I have not finished a quarter of the bottle (2s. 9d.) the pain has left my chest, and the cough is almost well." BROWN.

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**COUGHS,
CONSUMPTION,
ASTHMA,
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TIC,
SPASMS,
HYSTERIA,
DIARRHŒA,
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| Liq. Chlorodyne (Original and only Genuine) Preparation | ½ lb. | 2/6 each | For dispensing purposes |
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| Ditto ditto | 1 lb. | 8/- " | |
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| Thornton's Celebrated Toilet Cream | | 1 0 | 0 9 0 |
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| The Thornton (Red) Lotion (Stamped) | | 2 6 | 1 4 0 |
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| Ditto ditto | | 2 6 | 1 4 0 |

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MANCHESTER.

"LOYD'S LEICESTER"



The manufacture of Soluble Pearl Coated Pills was first introduced into Leicester by Mr. T. HOWARD LLOYD (18 years partner in the firm of JOHN RICHARDSON & CO.), and they are now made with the most complete and modern machinery, ensuring accuracy and uniformity, by

T. HOWARD LLOYD & CO. HIGH STREET, LEICESTER.

SOLUBLE PEARL COATED PILLS

SPECIAL NET PRICES FOR CASH WITH ORDER, IN TEN-GROSS TINS.

| | | | | | Per Gross |
|------------------------------|----|----|----|----|-----------|
| | | | | | s. d. |
| Pil. Aloes et Ferri, P.B. | .. | .. | .. | .. | 0 6 |
| .. Colocynth. Co., P.B. | .. | .. | .. | .. | 0 11 |
| .. Colocynth. et Hyos., P.B. | .. | .. | .. | .. | 1 1 |
| .. Rhei Co., P.B. | .. | .. | .. | .. | 0 6 |

APERIENT.

| | | | | |
|-----|----|--|----|-----|
| 105 | .. | Each Pill contains $\frac{1}{3}$ gr. of Calomel. | .. | 0 6 |
|-----|----|--|----|-----|

ANTIBILIOUS.

| | | |
|--|----|-----|
| 62 Hydrarg. Pil., Ext. Coloc. Co., Pil. Rhei Co. | .. | 1 0 |
| 262 Podophyllin, Ext. Coloc. Co., Ext. Hyoscy. | .. | 1 2 |

COUGH.

| | | | | | |
|---|----|----|----|----|-----|
| 164 Pulv. Ipecac. Co., Gum. Ammon., Pulv. Scilla, Saponis | .. | .. | .. | .. | 0 7 |
|---|----|----|----|----|-----|

CASTOR OIL.

| | | | | | |
|-----|----|----|----|----|-----|
| 289 | .. | .. | .. | .. | 0 6 |
|-----|----|----|----|----|-----|

TONIC.

| | | | | | |
|-----|----|---|----|----|-----|
| 371 | .. | .. | .. | .. | 0 6 |
| | | (Blaud's Formula, Martindale's improved.) | | | |

"LITTLE" APERIENT.

| | | | | | |
|--|----|----|----|----|-----|
| 458 Aloin, Podophyllin, Ext. Hyoscy., Jalapin., Ext. Nucis Vom., Capsicin. | .. | .. | .. | .. | 5 0 |
|--|----|----|----|----|-----|

Samples of the above, with our Complete List, sent on application.

In ordering, please note Address, and see that the Label on each Bottle or Tin corresponds with the above Block.

LEO & CO.'S COMPRESSED DRUGS

Maintain their high reputation against all comers for general excellence of quality and finish.

SPECIAL LINES.

| | 1 lb. | 7 lbs. |
|----------------------------------|-------|--------|
| CHLORATE OF POTASH - - - - | 1/2 | 1/- |
| CHLORATE OF POTASH AND BORAX - - | 1/2 | 1/- |
| COMPOUND SULPHUR - - - - | 1/8 | 1/6 |
| SODA BICARB. - - - - | 1/2 | 1/- |
| SODA MINT - - - - | 1/2 | 1/- |

TINS FREE. NET CASH WITH ORDER.

A FULL ASSORTMENT OF COMPRESSED GOODS KEPT. PRICES ON APPLICATION.

8 CREECHURCH LANE, LONDON, E.C.

VINACOCA

Embracing the Therapeutic Properties of the COCA Plant, blended with the best Madeira.

COCA FOR TROUBLESOME THROATS.

Testimony is not wanting from specialists in diseases of the throat, and dramatic and lyric artists, to show that Coca has a wonderfully invigorating effect upon the voice. The preparation in most common use is the Wine of Coca, which, in order to yield the characteristic effect, must be made "upon honour." To be of any decided value it must be made from the Coca leaves. Very much of the Coca Wine on the market is merely a solution of Cocaine, which cannot be too severely condemned. Hence, those with troublesome throats who desire to use this tonic should be exceedingly careful in purchasing, patronising dealers only of known reliability.

The VINACOCA is carefully prepared from the best Coca Leaf only. (No addition of Cocaine.)

ONLY ONE WINE (CHOICE MADEIRA)
ONE QUALITY (A¹)
ONE PRICE } THE BEST & CHEAPEST ON THE MARKET.

VINACOCA is a direct stimulant of the most active kind, supporting life in a manner almost miraculous, without disturbance of the vital functions. For the voice, a wineglassful before any ordeal is sufficient. Its effect upon the vocal cords is surprising, and of great value to Public Speakers, Professional and other Singers, and Lecturers.

Sold in Bottles at 3s. 6d. each, or 40s. per dozen, Retail. Usual Trade Discount.
Pamphlets for distribution, carriage paid.

COCA is prepared in various forms: COCA LOZENGES, COCA TABLETS, COCA ELIXIR, COCA TEA, COCA CHOCOLATE, STAMIN (Coca and Beef Extract), COCA TOBACCO, &c.

FULL PARTICULARS FROM

THE FRENCH HYGIENIC SOCIETY,
6 CONDUIT STREET, REGENT STREET, LONDON, W.

BLAUD'S PILLS.

CAUTION!

THE majority of these Pills at present on the Market are utterly useless. Owing to defective manufacture they do not retain the Ferri Sulph. and Pot. Carb. in a free state, but oxidation takes place speedily, and few days after they are made Ferric Oxide becomes the principal constituent. Resin is in many instances used in the process of Coating, the result being that the Pills pass through the alimentary canal undissolved.

The original design of the formula being therefore frustrated, the results anticipated from its use cannot be realised, and disappointment and dissatisfaction arise. Quite recently a medical friend of ours experimented upon some of the cheap class of so-called Blaud's Pills by placing them in water. At the end of 14 days there was no evidence of change.

Our process of manufacture is a special one (known only to ourselves), and effectually obviates the difficulties above mentioned, with the result that the demand for our make is enormous, probably far exceeding the output of all our imitators.

Whilst offering Blaud's Pills at a reasonable price, we guarantee the ingredients used to be of the best possible quality, and that no chemical change occurs; their action may consequently be always relied upon.

Price (in original 10-gross tins bearing our name and trade mark) 8d. per gross. Usual discount.

Special quotations at reduced rates for larger quantities.

COMPRESSED TABLETS OF PURE DRUGS.

OWING to the greatly increased demand for drugs in Compressed Tablets, we have been compelled to augment and improve our Machinery for their production on a larger scale. There has hitherto been considerable objection to some drugs in this form in consequence of the difficulty of their solubility; in order to meet this, we now specially prepare all drugs which are not readily soluble, on a new principle, with a result that disintegration ensues in a few seconds. This may be tested by placing the Tablets in water.

The standard quality of the ingredients is maintained as heretofore, and we beg to call special attention to the following exceptionally low rates:—

| | 1 lb. | 7 lbs. | The following totally disintegrate in a few seconds. | 1 lb. | 7 lbs. |
|--|-------|--------|---|-------|--------|
| Potass. Chlor. | 1/3 | 1/- | Antipyrin | 50/- | — |
| Potass. Chlor. c. Boracis | 1/3 | 1/- | Sulphur. Sub., gr. iij. | 1/3 | 1/- |
| Cocain, Pot. Chlor. et Boracis | 4/- | 3/9 | Sulphur. Sub., gr. v. | 1/3 | 1/- |
| Sodii Bicarb. | 1/3 | 1/- | Sulphonol | 25/- | — |
| Soda Mints | 1/9 | 1/6 | Salol | 18/- | — |
| Soda and Ginger | 1/3 | 1/- | Phenacetin | 36/- | — |
| Sulph. Co. (Garrod's) | 1/3 | 1/- | Antifebrin | 5/6 | — |
| Quinine Bisulph. | 30/- | 28/- | | | |

The above prices are strictly net, and for Tablets in bulk. In bottles for retail see our Price Current, page 22.

JOHN RICHARDSON & CO., LEICESTER.

ESTABLISHED 1793.

ESTABLISHED 1853.

J. LLEWELLYN & CO.

Analytical and Photographic Chemists,
Operative Chemists, Perfumers, Druggists' Accessories,
Aërated and Mineral Water Manufacturers,
MEDICAL HALL, SHANGHAI.

SOLE AGENTS FOR CHINA.

AGENCIES AND CONSIGNMENTS OF GOODS SOLICITED.

London Offices: 87^A LEADENHALL ST, E.C.**WILLIAM RADAM'S
MICROBE KILLER.**

Many persons, seeing the words "MICROBE KILLER," have been led to believe that it is a Disinfectant for External use only. WILLIAM RADAM'S "MICROBE KILLER" is a powerful Medicine, that Kills the Germs of Disease. It is taken internally, and applied externally, as the case may require, and attacks and kills the Microbes, which are the direct cause of disease, thereby thoroughly cleansing the blood, and giving tone to the whole system. In short, it restores to a healthy condition all the organs of the body, being composed of pure water, charged with powerful Germ-Destroying Gases. It is almost as pleasant to drink as clear spring water.

IT IS NEITHER POISONOUS NOR INJURIOUS
in the smallest degree, but, on the contrary, it may be given to the youngest children with most absolute confidence.

Pamphlet, with Testimonials of remarkable Cures, sent free to any address.

WM. RADAM'S MICROBE KILLER CO., LTD.

111 Oxford Street, LONDON, W.

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**DR. LALOR'S
PHOSPHODYNE**

For TWENTY-EIGHT YEARS has maintained its world wide reputation as

THE ONLY SAFE RELIABLE PHOSPHORIC CURE
for Brain Wreckage, Paralysis, Sleeplessness, Harassing Dreams, Premature decay of Vital Power, and all Functional and Diseased Conditions of the System dependent upon the Deficiency of the Vital Forces.

**DR. LALOR'S
PHOSPHODYNE**

Is the only Medicine of the kind or name awarded a Certificate of Merit at the Calcutta Exhibition, 1883-4, where all Countries were Exhibitors, and the only Trade Mark—"PHOSPHODYNE"—Registered and Protected under the Trade Marks Act.

THOUSANDS of unimpeachable Testimonials from all parts of the World, and from the highest Medical Authorities, prove conclusively the Verdict Universal that in the World of scientific research no other Phosphoric Preparation has received such exalted praise and distinguished recognition.

Sold in bottles at 4s. 6d. and 11s. by all Chemists throughout the World.

MANUFACTURED ONLY AT

**DR. LALOR'S PHOSPHODYNE
LABORATORY,
HAMPSTEAD, LONDON, N.W.**

CHEMISTS enclosing Trade Card will be supplied free with a neat Pamphlet for Counter, &c.

**CAMPHOR.
REFINED IN JAPAN.**

THE FIRST SHIPMENT IS NOW BEING DISTRIBUTED TO THE TRADE.

Please send a Trial Order to your Wholesale House and try the New Article.

QUALITY AND PRICE WILL BE FOUND SATISFACTORY.

AGENTS FOR UNITED KINGDOM—

STALLMAN & FULTON, DUNSTER HOUSE, MINCING LANE, E.C.**COCKING'S JAPAN OIL OF PEPPERMINT.**

Our Extra Steam Refined Oil is treble distilled and twice rectified by steam, by an entirely new process and in apparatus of our own invention, by which all those polymeric products of a tarry and resinous nature which are objected to by some consumers are extracted. It is of water-white colour retaining its full aroma, pungency, and strength, and guaranteed absolutely pure and soluble in spirits of wine.

COCKING'S JAPAN MENTHOL CRYSTALS.

Our Extra Steam Refined quality is in firm, hard, dry, and snowy-white crystals, entirely free from oily contamination, and therefore of the highest melting-point. As the original and largest manufacturers in the world of the true Japan Menthol, we guarantee our brand to be absolutely pure. Beware of substitutes. For full particulars, therapeutic uses, &c., see special circulars, to be had on application.

Sole Agents—JOHN BATT & CO., 39 OLD BROAD ST., E.C.

Armour's

Pure, High-testing, and unaltered

Digestive Ferments

Armour & Co. slaughter annually nearly 2,000,000 pigs, affording unequalled facilities for selection. Their Laboratory adjoins their slaughter-houses, permitting prompt handling of the stomachs, thus preventing all possibility of taint or contamination during the process of isolation, and ensuring that the medicinal preparations contain the Digestive Ferments in an unaltered state.

THE FOLLOWING ARE OFFERED:

- | | |
|--|---|
| Insoluble Powdered Pepsin, per oz. 3/6 ... | } One grain dissolves 2,500 grains coagulated egg albumen in 6 hours. |
| Soluble Scale Pepsin, per oz. 3/6 | |
| Soluble Powdered Scale Pepsin, per oz. 3/6 | |
- Glycerole Pepsin (10 minims equal in digestive power 1 grain of our Soluble Scale), per pint 6/3.
 Pepsin Tablets, each containing 3 grains of our Insoluble Powdered Pepsin (a convenient dosage form).
 Each Bottle contains 75 Tablets. 25/ per dozen.
 Pure Pancreatin, in powder, for internal administration, 3/6 per oz.
 Pure Pancreatin and Soda Tablets, for pre-digesting foods (recipes furnished). Each Bottle contains 15 Tablets. 7/6 per doz.
 Glycerine Solution of Rennet, per pint 6/3. Formula supplied for making Essence of Rennet.
 Pure Powdered Rennet. One grain will quickly curdle $2\frac{1}{2}$ pints milk. 3/6 per oz.

Under similar conditions Armour's Digestive Ferments exhibit GREATER ACTIVITY than any others offered to the Trade.

SPECIAL QUOTATIONS IN BULK TO MANUFACTURERS.

The Manufacturers will be pleased to supply Samples & descriptive matter on application.

These Preparations are obtainable from all Wholesale Houses.

ARMOUR & CO., 59 & 60 Tooley St., LONDON, S.E.

Laboratory and General Offices,
CHICAGO, U.S.A.

Telegraphic and Cable Address,¹
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SMITH & SONS

WHOLESALE DRUGGISTS AND MANUFACTURING CHEMISTS,
44, 46, and 48 MAGDALEN STREET, NORWICH.

PURE CHEMICALS.

NEW REMEDIES.

MANUFACTURERS

OF ALL

PHARMACEUTICAL**PREPARATIONS**

IMPORTERS OF ESS. LIMONIS

SUPER AND ALL ESSENTIAL OILS,

CRUDE DRUGS AND CHEMICALS.

DEALERS IN DRUGGISTS' SUNDRIES AND SURGICAL APPLIANCES.

PRICES CURRENT ON APPLICATION.

TELEGRAMS—"SMITH NORWICH."

LOFTHOUSE & SALTMER,
MANUFACTURING CHEMISTS, WHOLESALE AND EXPORT **DRUG MERCHANTS,**
HULL,

Manufacturers of all Pharmaceutical Preparations on the best and most improved principles. Quotations on Application.

DEALERS IN PURE CHEMICALS

For Medicinal, Photographic, and Commercial purposes.

Importers of Cod Liver, Castor, and
Olive Oils; Extra Super Essence of Lemon
and Bergamot, Otto de Rose, and all



Essential Oils; Valerian Saffron; Vanillas;
Fruit Essence; Carmine; Aniline Dyes;
Bees' Wax, &c., &c.

Special Agents for Sicilian Sublimed Sulphur
in 2-cwt. bags, and Rolled Sulphur in 3-cwt.

casks. Most Favourable Quotations can be given
to large Wholesale Dealers on application.

MAGNESIA

FOR PHARMACEUTICAL AND MANUFACTURING PURPOSES

CARBONATE, in BLOCK, POWDER, or WEIGHED BLOCKS.

CALCINED & PURE HYDRATE OF MAGNESIA.**PURE FLUID MAGNESIA.**

ONE OF THE BEST BRANDS MADE.

For Prices and Particulars apply to

THE WASHINGTON CHEMICAL CO., WASHINGTON, COUNTY DURHAM, ENGLAND.**"FOR THE BLOOD IS THE LIFE."**

Trade Mark—"BLOOD MIXTURE"
(Registered No. 3275.)

The Celebrated CURE for
Scrofula, Scurvy, Eczema,
Blood and Skin Diseases,
and Sores of all kinds

WHOLESALE OF ALL THE WHOLESALE HOUSES.

SOLE PROPRIETORS:

THE LINCOLN & MIDLAND COUNTIES
DRUG COMPANY, LINCOLN.

Counter Bills and Posters, with Name and Address,
also Show Cards, on application. Printed matter
supplied in any Language for Foreign Agents.

CAUTION.—The Proprietors will take immediate proceedings against all persons pirating their Trade Mark, "Blood Mixture," Labels, Wrappers
&c., or Advertisements, or in any way infringing their rights.

MERCURIALS

(QUALITY GUARANTEED)

MANUFACTURED BY **BILLAULT, PARIS.**

GRAND PRIX, PARIS EXHIBITION, 1889.

CALOMEL, CRYSTAL & POWDER.

RED, WHITE, & YELLOW PRECIPITATE.

CORROSIVE SUBLIMATE.

MERCURY ARSENIATE.

„ BI-BROMIDE.

„ CYANIDE.

„ IODIDE GREEN.

„ do. RED.

„ PERSULPHATE.

„ PERACETATE.

MERCURY PERNITRATE Crystal.

„ PROTONITRATE „

„ PROSULPHATE.

„ SALICYLATE.

„ SUBSULPH. (Turpeth. Minl.).

„ SULPHOCYANIDE.

„ SULPH. c. SULPH. (Ethiop. Minl.).

Ask for Billault's make. SPECIAL QUOTATIONS to Large Buyers on stating quantity required.

LITHIA SALTS.

LITHIA BENZOATE.

LITHIA CARBONATE.

LITHIA SALICYLATE.

Ditto BORATE.

Ditto CITRATE.

Ditto SULPHATE.

*Messrs. Billault are the OWNERS of the ONLY LITHIA MINE in the WORLD.**Iodoform, Tartar Emetic, Bromide of Potass., Chloral Hydrate, Gallic, Osmic and Lactic Acids, Terpene, Tannin, Guaiacol, &c.*

CHLORIDE OF METHYL (for Rheumatism & Neuralgia).

FINE CHEMICALS of every description for Medicinal, Analytical, Photographical, & Technical purposes.

SOLE AGENTS for the UNITED KINGDOM, COLONIES, and the UNITED STATES:

FUERST BROTHERS,

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Telegrams—"FUERST LONDON." "REMOLTEN NEW YORK." Telephone No. 1050.

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PILL MACHINES

Those desirous of securing the best appliances for pill-making in large or small quantities should apply to

G. W. NIBLETT, 26 Rainbow St., Southampton St., CAMBERWELL, S.E.



WEDGWOOD ACID-PROOF MORTARS AND PESTLES.

ALSO MANUFACTURERS OF
Funnels, Evaporating Pans, Electric Battery Fittings, Bed Pans, Urinals, Medicine
Spoons, Physic Cups, Sick Feeders, Bleeding Basins, Medicine Measures, Eye Cups,
Inhalers, Nursery Lamps, Wall Tiles, &c.

PRICE LIST ON APPLICATION. SPECIAL QUOTATIONS FOR LARGE ORDERS.

Any Article not bearing the Stamped Trade Mark "WEDGWOOD" is not made by us.

JOSIAH WEDGWOOD & SONS, ETRUBIA, STOKE-ON-TRENT.
London Rooms—ST. ANDREW'S BUILDINGS, HOLBORN CIRCUIS.

G. TREBLE & CO., CHEMISTS' SHOP FITTERS,

HAVE **REMOVED** FROM 2 KINGSLAND GREEN, DALSTON,
TO MORE EXTENSIVE PREMISES AT

59 RHODES STREET, ST. JAMES' ROAD, HOLLOWAY, LONDON, N.
DESIGNS AND ESTIMATES FREE.

THE FOREIGN BOTTLE MANUFACTURING COMPANY,

144 and 147 NARROW STREET, LIMEHOUSE, LONDON, E.,
SUPPLY ALL KINDS OF

MEDICAL, PERFUMERY, OIL, SAUCE, &c., BOTTLES

OF BEST QUALITY, AT LOW PRICES.

THE "STIPENDUM" STOPPER CO., LIM.

47 LAMB'S CONDUIT STREET, LONDON, W.C.,

Manufacture the following Specialities—

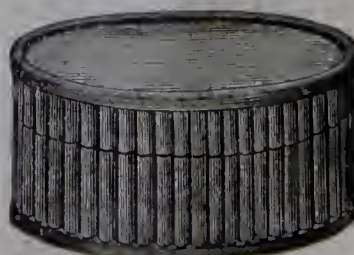
- "STIPENDUM" CORK STOPPERS, in all sizes.
- "STIPENDUM" CORK-LINED CAPS, for Pomade Bottles.
- "STIPENDUM" SCREW CAPS, for Pomade Bottles.
- "STIPENDUM" OPENERS, for Stoppered Aërated Water Bottles.
- "STIPENDUM" GREASE-PROOF COVERED POTS
IN TERRA COTTA, CHOCOLATE, AND BLACK.

The Grease-Proof Covered Pots have perfectly fitting lids, are practically unbreakable, and the only article really answering the purpose intended.

The following Analytical Report should be noted by
the trade:—

London, January 5, 1891.

"We have examined the two covered pots marked
November 21, 1890, one containing strong nitrate of
mercury ointment, and the other iodine ointment, the
object being to discover—(1) Whether the ingredients
of which the pots are composed have in any way
affected the ointments; (2) Whether the pots have
been deteriorated by the action of the ointments.



We hereby certify that no trace of any of the
ingredients of the pot can be discovered in either of
the ointments, and further that the pots themselves
were found not to have been acted on at all; and we
further consider 'Stipendum' admirably adapted for
such pharmaceutical preparations.

Signed, C. T. KINGZETT, F.I.C., F.C.S.
(Ex Vice-President Society of Public Analysts).
R. H. HARLAND, F.I.C., F.C.S.
(Public Analyst)."

To be had of all Druggists' Sundriesmen.

Wholesale only of the Company.

BARRON, HARVEYS & CO.

GILTSPUR STREET, LONDON, E.C.

Beg to inform their friends and the Trade generally that, having purchased the Business of

BARRON, SQUIRE & CO., BUSH LANE,

and also the various Formulæ of the Special Preparations of

JAMES BASS & SONS, HATTON GARDEN,

they are prepared to execute orders for the same, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 28 years without deterioration.

ESTABLISHED 1813.

CLAY, DOD & COMPANY,

WHOLESALE AND EXPORT DRUGGISTS,

52 ST. ANNE STREET, LIVERPOOL.

Address for Telegrams—"CLAY LIVERPOOL."

Telephone No. 1192.

Mills and Laboratories—WAKEFIELD STREET.

CLAY'S LAVENDER WATER.

No. 1.—Distilled from English Flowers, 6/- per lb.; Winch, 5/6. No. 2.—Very Choice, 4/3 per lb.; Winch., 3/9.

Manufacturers of all descriptions of

PHARMACEUTICAL PREPARATIONS, COATED TASTELESS PILLS.

POWDERS GROUND IN OWN MILLS. PURITY GUARANTEED.

Samples free on application. Special Quotation to Cash or Large Buyers. Monthly Priced List forwarded on receipt of business card

BITUMINOL, OR VASELINE SUBSTITUTE.

SUGAR OF MILK

CRYSTALS, half pyramids, half flats
POWDER, white, and guaranteed pure
Cases of 1 cwt. each.

FREDK. BOEHM,
Billiter Square Buildings, LONDON.

HOPGOOD & CO'S
HAIR NUTRITIVE & SEDATIVE
CREAM

The only preparation for the Hair recommended by leading Physicians for the removal of Scurf, allaying irritation, preventing greyness and baldness, and producing a

LUXURIANT HEAD OF HAIR.

JOHN A. WALCOTT, M.D., M.R.C.S., says:—"I feel much pleasure in being able to recommend (with confidence) your NUTRITIVE CREAM in all cases of irritation of the scalp, accumulation of dandruff and loss of hair, in each of which I have freely used it with UNFAILING SUCCESS."

In Bottles to Retail at 1s. 6d., 2s., 2s. 6d., 3s. 6d., 5s.

Revised Wholesale Prices, 12s. 6d., 18s. 6d., 20s., 30s., and 42s. per dozen. Supplied by all Wholesale and Retail Houses.

OR FROM THE DEPOT—

OSBORNE, CARRETT & CO., 51 FRITH ST., SOHO LONDON, W.

SAMPLES FREE.

Distillery & Plantations:
GLADSTONE, QUEENSLAND.

TIMBURY'S
PURE VOLATILE
EUCALYPTUS CITRIONDORA OIL,
EUCALYPTUS MACULATA,
VAR. CITRIONDORA.

TIMBURY'S
EUCALYPTUS OIL CO.,
124 Clerkenwell Road,
LONDON, E.C.

SAMPLES FREE.

WILLIAM TOOGOOD'S

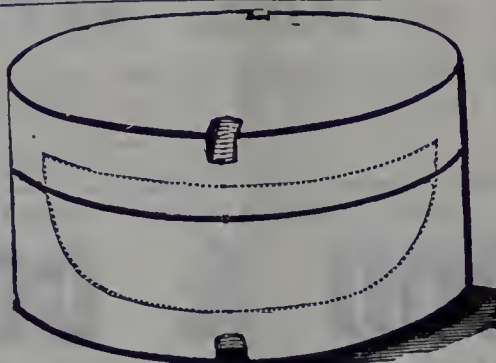
WAREHOUSE AND SHOW ROOM,

BURLINGTON BUILDINGS;

HEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S IMPROVED PATENT EARTHENWARE COVERED POTS

Are claimed to be the most
perfect and convenient yet offered to
the Trade.



Owing to the increasing demand
for our Patent Pots, we have in-
troduced a Special THIN Series
for Dispensing.

These Pots are beautifully
glazed and finished, and, being
very light, are specially adapted
for sending by post.

ORDINARY THICKNESS—

| | | | | | | | | | | |
|---------------|---------------|---------------|---------------|----------------|----------------|---------------|----------------|---------------|---------------|------------------------|
| 1 dr. | 2 dr. | $\frac{1}{2}$ | $\frac{1}{4}$ | 1 | $1\frac{1}{2}$ | 2 | 3 | 4 | 6 | 8 ounces. |
| $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{6}$ | $\frac{1}{8}$ | $\frac{1}{10}$ | $\frac{2}{5}$ | $\frac{2}{3}$ | $\frac{2}{10}$ | $\frac{3}{8}$ | $\frac{4}{6}$ | $\frac{5}{6}$ per doz. |

THIN FOR DISPENSING—

| | | | | | | | | |
|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|------------------------|
| $\frac{1}{2}$ | $\frac{1}{4}$ | 1 | $1\frac{1}{2}$ | 2 | 3 | 4 | 6 | 8 ounces. |
| $\frac{1}{7}$ | $\frac{1}{9}$ | $\frac{2}{5}$ | $\frac{2}{2}$ | $\frac{2}{5}$ | $\frac{3}{5}$ | $\frac{4}{5}$ | $\frac{5}{5}$ | $\frac{6}{5}$ per doz. |

TOOGOOD'S NEW REGISTERED SLIDE BOXES FOR POWDERS, &c.

REGISTERED No. 154,622.

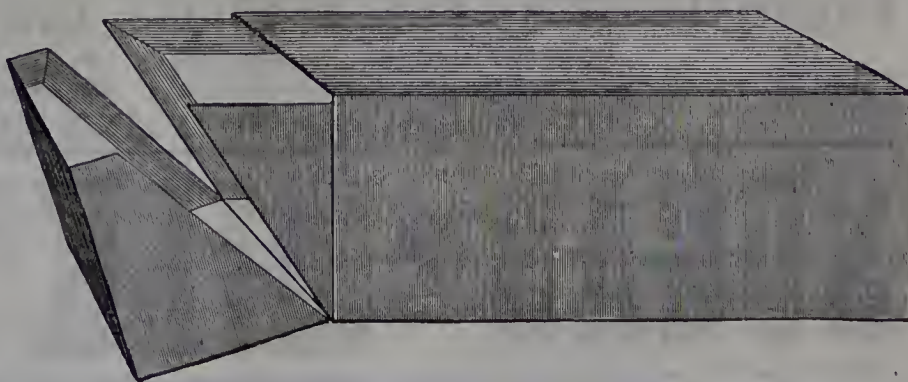
PRICES.

For 6 12 18 24 Powders

White Enamel

6/9 7/9 8/9 9/9 gross

Purple ... 7/9 8/9 9/9 10/9 „



TOOGOOD'S AIR-TIGHT AND GREASE-PROOF PAPER

FOR PACKING LINSEED MEAL, JUJUBES, &c. Demy size, 6/6 ream.

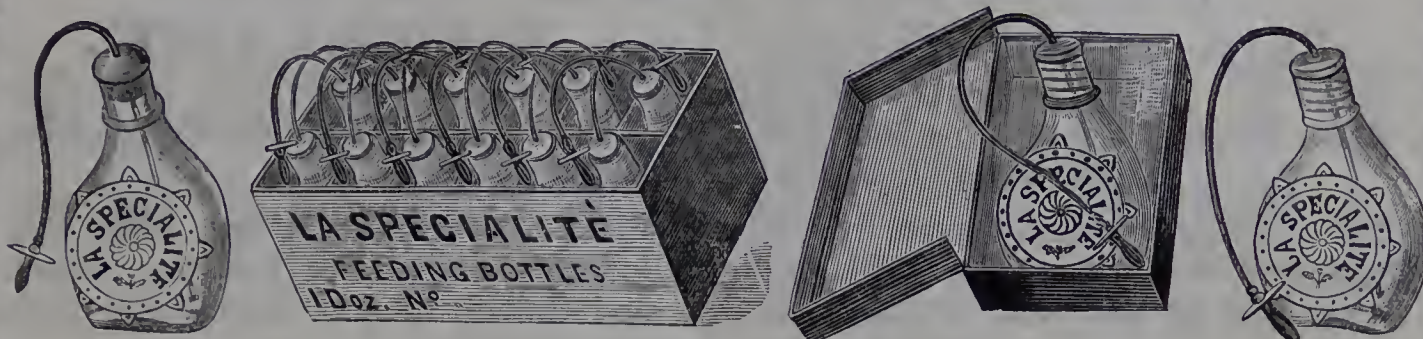
TOOGOOD'S PATENT BRONCHITIS AIR KETTLE,

51/- per dozen.

SOLE AGENT FOR DR. LEE'S STEAM DRAFT INHALERS.

FEEDING BOTTLES

"LA SPECIALITÉ" SERIES.



| No. | Each Bottle in Paper Bag | NET Per Gross LONDON. | No. | In Divisioned Wood Boxes of One Doz. each. | NET Per Gross LONDON. |
|-----------------------|---------------------------------------|--------------------------------|-----------------------|--|--------------------------------|
| WHITE RUBBERS. | | | WHITE RUBBERS. | | |
| 51 | Green Bottle, Boxwood-topped Cork ... | 23/- | 59 | Green Bottle, Boxwood-topped Cork ... | 27/6 |
| 52 | White " " ... | 25/- | 60 | White " " ... | 30/- |
| 53 | Green " Screw Glass Stopper ... | 26/6 | 61 | Green " Screw Glass Stopper ... | 31/- |
| 54 | White " " ... | 28/6 | 62 | White " " ... | 33/- |
| BLACK RUBBERS. | | | BLACK RUBBERS. | | |
| 55 | Green Bottle, Boxwood-topped Cork ... | 26/6 | 63 | Green Bottle, Boxwood-topped Cork ... | 31/- |
| 56 | White " " ... | 28/6 | 64 | White " " ... | 33/- |
| 57 | Green " Screw Glass Stopper ... | 30/- | 65 | Green " Screw Glass Stopper ... | 34/6 |
| 58 | White " " ... | 32/- | 66 | White " " ... | 36/6 |

IN QUANTITIES OF NOT LESS THAN ONE GROSS.

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These Bottles have been prepared specially to meet the demand for Cheap Feeding Bottles, attractive in appearance and of good quality, but without any Maker's Name on Bottles or Boxes.

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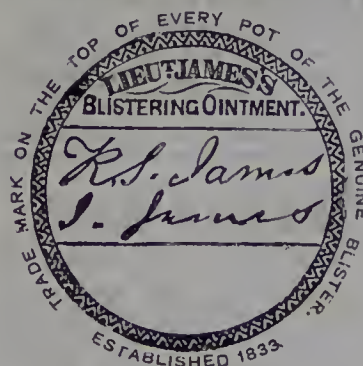
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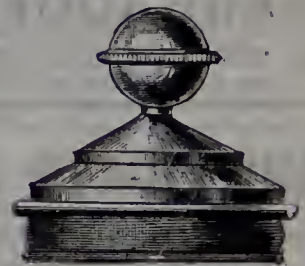


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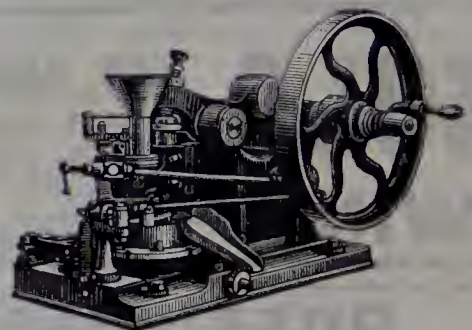


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See pages 177-178 SUMMER ISSUE, July 25, 1891.

61

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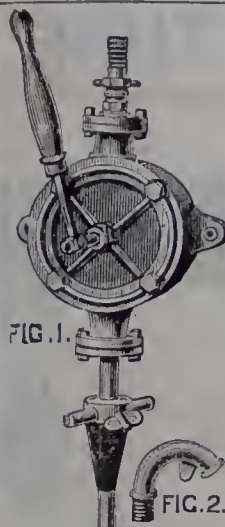
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